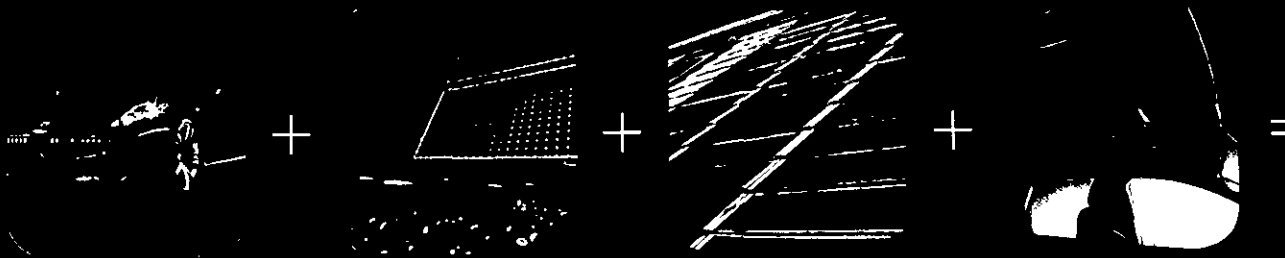




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QUANTUM
TECHNOLOGIES

DRIVING TOMORROW'S TECHNOLOGY TODAY

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CORPORATE PROFILE

Quantum Systems Technologies Worldwide, Inc., a fully integrated alternative energy company, is a leader in the development and production of advanced propulsion systems, energy storage technologies, and alternative fuel vehicles. Quantum's portfolio of technologies includes advanced lithium-ion battery systems, electronic controls, hybrid electric drive systems, hydrogen storage and metering systems, and alternative fuel technologies that enable fuel efficient, low emission hybrid, plug-in hybrid electric, and alternative fuel vehicles. Quantum's powertrain engineering, system integration, vehicle assembly, and assembly capabilities provide fast-to-market solutions to support the production of commercial, military, and government covered cars, light, medium, and heavy duty vehicles, alternative fuel, and specialty vehicles. Quantum's technology is being used in a variety of applications including military and other government and commercial vehicles. Quantum's technology is being used in a variety of applications including military and other government and commercial vehicles.

Quantum Systems Technologies Worldwide, Inc. is a public company listed on the New York Stock Exchange under the ticker symbol QSTW.



Alan P. Niedzwiecki
President & Chief Executive Officer

DRIVING TOMORROW'S TECHNOLOGY TODAY

A Message from the CEO

DEAR STOCKHOLDERS,

Skyrocketing energy prices and difficult economic conditions are driving us to rethink transportation and energy. Worldwide interest in alternative energy technologies and renewable energy is growing dramatically. Individuals, businesses, and governments are seeking new, alternative forms of transportation technologies. The electrification of the automobile via hybrids, battery electric, plug-in hybrids and future fuel cell vehicles is a topic on the minds of all automakers worldwide. Quantum's hybrid technologies, such as the PHEV (plug-in hybrid electric vehicle) drive system being developed for Fisker Automotive and our European solar initiatives are poised for growth for decades to come.

Fiscal 2008 was an exciting and busy transitional year for Quantum. We co-founded and launched Fisker Automotive, acquired an equity stake in Asola (a German solar company), developed several "high profile" hybrid and alternative energy vehicles, and divested our Tecstar Automotive business segment. With the divestiture of the Tecstar Automotive business segment, we returned to our roots as a green-technology alternative transportation and alternative energy company.

Based on these business developments and strategic initiatives, along with several others in progress, I am very excited about the future outlook for Quantum.

We believe, now more than ever, the public demand for alternative energy technologies is on the rise against the backdrop of escalating prices,

dwindling supplies of traditional energy resources and environmental concerns. Growth in hybrid vehicles and related technologies is expected to be exponential through the coming decades. We have seen a heightened level of commercial and government activity over the past twelve months related to electric hybrid vehicles and renewable energy. Market drivers are pushing towards the electrification of transportation as a path to diversify energy resources, increase fuel efficiency, reduce environmental impacts, and reduce petroleum use. The transition to "electrify" transportation will be accompanied by accelerated adaptation of distributed energy sources including renewable solar photovoltaic systems.

Quantum is well-positioned to benefit from the worldwide interest and accelerated migration towards electrification of vehicles and renewable energy sources. We have successfully leveraged our years of extensive experience and capabilities in vehicle engineering, hybrid propulsion systems, energy storage technologies, alternative-fuel and hydrogen fuel cell systems to develop innovative hybrid electric drive systems. Our propulsion systems are on the road today in North America, Europe, and Asia.

Quantum has partnered with renowned auto designer Henrik Fisker (Aston Martin, Ford, BMW), to produce cars that make a difference to the environment—without sacrificing the luxury and style that accompany the finest automobiles. As a founding shareholder of Fisker Automotive, we have built an equity foundation in the premier "green" American car company.

The Fisker KARMA—the first premium luxury plug-in hybrid production car—as well as future Fisker Automotive models will feature Quantum's cutting-edge plug-in electric hybrid technology "Q-Drive" and vehicle roof-integrated solar photovoltaic modules. Benefits of the Q-Drive system include optimized fuel efficiency and superior performance, unchanged gas station infrastructure, and home-based battery recharging with 110-volt outlet, 220/240-volt fast-charging, or using Quantum's solar energy powered re-charging station. The Fisker KARMA was unveiled at the Detroit International Auto Show in January 2008. This stunning automobile generated worldwide attention. Concurrently, Fisker Automotive announced a major financial commitment from the leading "green" venture capital firms: Kleiner Perkins Caufield & Byers whose clientele includes Google, AOL, Oracle and Sun Microsystems, and also Palo Alto Investors, whose clients include eBay.

Through our equity investment and strong partnership with the German solar company, Asola, Quantum is well-positioned to benefit from the consistent double-digit growth in renewable energy and solar markets in Germany, Spain, and Italy. Asola is a leading German solar energy technology company that develops and manufactures high quality and high-efficiency photovoltaic modules for a number of innovative applications, including commercial, residential and automotive. The solar photovoltaic market grew by over 40% in 2007, and will continue to grow as demand for energy increases. Asola has signed a long-term solar cell supply agreement with the leading German solar cell provider Emsol-Bosch, and is well on its way to tripling its production capacity to 45 MW of solar photovoltaic modules, in order meet increasing demands. The solar cell supply agreement is for the procurement of 155 megawatts of high-efficiency silicon photovoltaic solar cells, starting in calendar 2008. Asola's potential revenue associated with the purchased cells is estimated to exceed \$0.5 billion.

FISKER KARMA:

"ELECTRIFYING" TRANSPORTATION

Fisker Automotive will offer a range of environmentally friendly premium cars. Development is well underway for the first production car—the Fisker KARMA. The Fisker KARMA, to be introduced in the fourth quarter of calendar 2009, is a 4-door premium sports sedan, positioned to meet the increasing demand for "green vehicles" in the luxury automotive market segment. The all-new plug-in Q-Drive powertrain layout will allow Fisker to design innovative luxury cars with uncompromised proportions as well as the sought after performance so often missing in other eco-friendly automobiles. The Q-Drive system will be integrated into a unique chassis that will enable performance optimization and vehicle dynamics. The Q-Drive plug-in hybrid electric drive system is designed to achieve fifty (50) miles of zero emission, battery-only range while providing combined gasoline-electric hybrid operation to enable uncompromised vehicle range and performance. Q-Drive is backed by Quantum's decade of experience in designing and producing over 500,000 specialty vehicles, 20,000 alternative fuel vehicle systems, 2,000 hydrogen systems, and hydrogen hybrid electric military vehicles and plug-in hybrid vehicles.

A FULLY INTEGRATED ALTERNATIVE ENERGY COMPANY

Our goal is to build upon our foundation of advanced energy technologies to become the premier fully integrated alternative energy company. We plan to utilize our powertrain, vehicle engineering and system integration experience to provide fast-to-market solutions to OEMs as plug-in hybrids move towards commercialization. We see powerful synergies with our lithium-ion battery energy storage systems developed by and supplied through our affiliate Advanced Lithium Power, and our industry-leading hydrogen storage systems to enhance the availability of intermittent renewable resources, such as wind and solar energy. Through our technology portfolio, in-house expertise, and in partnership with Asola, we are well-positioned to enter into renewable energy production opportunities. We believe that electricity buy-back programs and the rising electricity prices will lead to expanded opportunities for solar energy systems. Together with Asola, we are developing plans to expand into Spain, Italy and France, as well as enter into the California renewable energy market. Being a California based company, Quantum believes it is well-positioned to take advantage of California's solar energy initiatives.

LOOKING FORWARD

Quantum Fuel Systems reported a significant increase in revenue in fiscal 2008, driven by strong hybrid and hydrogen vehicle product sales and the initiation of several new development programs and production-intent hydrogen, hybrid and alternative fuel vehicle programs. We continue to build upon our strong alliances established over many years as well as the substantial strides made in our proprietary technologies this past year as a catalyst, as we begin preparation to reach production volumes on hybrid vehicle programs.

The progress of our alternative energy strategy to date, the business ventures and alliance partnerships we have created, the establishment of strong international relationships, and the skills and talents of our employees, give me and our Board of Directors excitement and confidence for the future. There will be no letting up in our efforts to meet our production goals on the Fisker KARMA, expand our solar initiatives and forge new relationships. Through organic growth, solar expansion and further strategic investments, we look to grow Quantum into a premier fully integrated energy company.

The efforts over the past year have created new opportunities for Quantum, thanks to the dedication and hard work of our talented employees. We appreciate the efforts and support of our Board of Directors, and we thank our stockholders for their support.

Best regards,



Alan P. Niedzwiecki
President & Chief Executive Officer

ACCOMPLISHMENTS FOR

Fiscal 2008

This year's accomplishments continue to advance and reinforce our transition as a premier fully integrated alternative energy company. Quantum's business highlights for the past year include:

- Cofounded Fisker Automotive, Inc.—a green American premium car company, by Quantum and Fisker Coachbuild, LLC. Fisker Automotive will offer a range of environmentally friendly plug-in hybrid luxury premium cars.

The new Fisker KARMA plug-in hybrid sedan was unveiled in January 2008 at the North American International Auto show in Detroit, together with Quantum's solar energy-based re-charging station.

Development is well underway for the first production car scheduled to be launched in late 2009. All models will feature Quantum's cutting-edge plug-in hybrid powertrain technology known as "Q-Drive." The Q-Drive plug-in hybrid electric drive system is designed to provide 50 miles of zero emission, battery-only range while providing combined gasoline-electric hybrid operation to enable uncompromised vehicle range and performance as well as no compromise to the consumer. The Q-Drive system will be integrated into a unique chassis that will enable optimizing the performance and vehicle dynamics. Benefits of the Q-Drive system include optimized fuel efficiency and superior performance, unchanged gas station infrastructure, and home-based battery recharging with 110-volt, 220/240 volt or charging using Quantum's residential solar energy powered re-charging station.

- Successful Series A funding led by Palo Alto Investors.
- Successful Series B funding led by Kleiner Perkins Caufield & Byers.
- Contract award by Fisker Automotive for \$14.5 million to advance and integrate Quantum's proprietary high-performance plug-in hybrid electric drive, "Q-Drive," for the Fisker KARMA four-door sport sedan production model.
- Acquisition of a 25% equity stake in Asola, a leading German solar energy technology company that develops and manufactures high quality and high-efficiency mono- and multi-crystalline photovoltaic modules for a number of applications, including commercial, residential and automotive. Based on existing orders and capacity, Asola anticipates 2008 revenues in excess of 50 million Euros.
- Quantum's affiliate, Asola, secures a 10-year supply contract with Ersol-Bosch, to procure 155 MW (megawatts peak power), of high-efficiency silicon photovoltaic solar cells. The Ersol agreement guarantees a steady supply of solar cells to Asola, thereby avoiding any potential disruptions due to silicon shortages and to achieve price stabilization into the future. The revenue associated with the purchased Ersol cells is estimated to exceed US \$0.5 Billion.
- Contract award (\$135 million) by AS Solar GmbH for the supply of high-efficiency silicon photovoltaic solar modules manufactured by Asola. Asola will supply its state-of-the-art 270 Watt and 230 Watt modules to AS Solar for installations primarily in Spain. AS Solar is a leading German integrated solar energy systems company with a strategic focus on Germany, Italy, and Spain.
- Contract award (\$20 million) by Krannich Solar, one of the largest solar system providers in Europe, for the supply of high-efficiency silicon photovoltaic solar modules.

- Launch expansion of Asola's Germany based production capacity. Asola will triple its annual solar module manufacturing capacity to 45 MW in response to increasing demand for photovoltaic power systems in Europe.
- Contract award by U.S. Army's Tank Automotive Research, Development and Engineering Center (TARDEC), National Automotive Center (NAC) to develop a diesel hybrid electric version of its Alternative Mobility Vehicle (AMV) "Aggressor." The contract, which has a total value of \$4.88 Million, is aimed at developing a second-generation high-performance light-duty off-road hybrid electric vehicle platform based on the results of and feedback from the U.S. Army's testing and evaluation of the original Quantum Aggressor vehicle. The propulsion system for this next phase of AMV development will focus on a JP-8 fuel-compatible diesel internal combustion engine based, battery dominant, series hybrid electric system, providing unparalleled high performance for Special Operations.
- Contract to supply six hydrogen hybrid vehicles for the U.S. Army's Tank Automotive Research, Development and Engineering Center (TARDEC). The contract will be administered by Aerospace Engineering Spectrum (AES), based in Ogden, Utah.
- Quantum and Boeing partner to advance hydrogen storage technologies. The Quantum-Boeing team was selected for a \$5.6 Million award from the U.S. Department of Energy for a contract to develop next-generation manufacturing technologies and processes for hydrogen storage vessels.
- Delivery of advanced hydrogen storage systems to three teams participating in Challenge X: Crossover to Sustainable Mobility, at the 23rd International Electric Vehicle Symposium (EVS-23) held in Anaheim, California, Dec. 2–5, 2007. Challenge X is a unique engineering competition, sponsored by the U.S. Department of Energy and General Motors, which is providing 17 university teams from across North America the opportunity to follow the GM Global Vehicle Development process and develop advanced propulsion technology solutions that will increase energy efficiency and reduce environmental impact.
- Delivery of hybrid electric Priuses to Norsk Hydro. Norsk Hydro's first hydrogen refueling station is located outside the company's research center at Herøya, Porsgrunn, Norway. It was officially opened on June 12, 2007 by State Secretary Steinulf Tunesvik of the Norwegian Ministry of Transport and Communications and Norsk Hydro's President and CEO, Eivind Reiten.
- Contract to supply ten hydrogen hybrid Priuses to VistOrka for use in Iceland's SMART-H2 project. The SMART-H2 (Sustainable Marine and Road Transport—Hydrogen in Iceland) project is a supported market introduction where participants impose various demands on hydrogen technology in a variety of market applications. The SMART-H2 is expected to be one of the largest hydrogen demonstrations in the world.
- Contract award to supply three transportable hydrogen refueling stations to General Motors. These units will be used to refuel GM's fuel cell vehicles, which are equipped with Quantum hydrogen fuel systems, at various locations, from vehicle proving grounds and public ride-and-drive events to fleet demonstrations.
- Contract from Shell for a modular hydrogen refueling station. The unit will be sited by Shell Hydrogen at a yet to be determined prominent location within the United States.
- Signing a strategic agreement in India for the marketing, sales, and distribution of its leading alternative fuel vehicle products and systems for compressed natural gas (CNG), blends of natural gas and hydrogen, and liquid petroleum gas (LPG). The Indian subcontinent is the fastest growing market for CNG and LPG systems, and is projected to double its global market share by 2012. The global markets for CNG and LPG are expected to exceed 8 million units by 2012, up from 3 million units in 2006.

We believe that this growing list of accomplishments, technologies, and capabilities solidify Quantum's foundation as it rapidly advances towards the goal of being the premier fully integrated alternative energy company.

QUANTUM TECHNOLOGIES

Form 10-K

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended April 30, 2008

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from

to

Commission File No.: 0-49629

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

33-0933072
(IRS Employer
Identification Number)

17872 Cartwright Road, Irvine, CA 92614
(Address of principal executive offices, including zip code)

(949) 399-4500
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:
None

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, \$0.001 par value per share

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company (as defined in Exchange Act Rule 12b-2).

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes ☐ No ☒

The aggregate market value of the Common Stock held by non-affiliates of the Registrant as of October 31, 2007 was approximately \$84.8 million, based upon the closing sale price of the Registrant's Common Stock on such date, as reported on the Nasdaq Global Market. Shares of Common Stock held by each executive officer and director and each person owning more than 10% of the outstanding Common Stock of the Registrant have been excluded in that such persons may be deemed to be affiliates of the Registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Number of shares outstanding of each of the issuer's classes of common stock as of June 26, 2008: 77,972,399 shares of Common Stock, \$.001 par value per share, and 999,969 shares of Series B Common Stock, \$.001 par value per share.

Documents Incorporated By Reference Into Part III:

Portions of the definitive Proxy Statement for the Registrant's fiscal 2008 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A within 120 days after the Registrant's fiscal year end of April 30, 2008 are incorporated by reference into Part III of this Report.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

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FORWARD-LOOKING STATEMENTS

Some of the information in this report and in the documents that we incorporate by reference contains “forward-looking statements” that involve risks and uncertainties. These forward-looking statements come within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and are subject to the “safe harbor” created by those sections. These statements take into consideration the disposal of the Tecstar Automotive Group business segment that occurred on January 16, 2008 and relate to, among other things: our market and business strategies; our plans to develop and commercialize our products; our ability to provide engineering and manufacturing services to our customers; our ability to integrate acquisitions and realize expected synergies thereof; our plans to expand our customer base; our ability to establish and maintain necessary strategic relationships; our ability to maintain our competitive advantage; our ability to secure the necessary certification of our products and comply with applicable standards; our ability to establish and effectively operate our manufacturing sites; our ability to attract and retain necessary employees; our ability to protect our intellectual property; our position in our markets; government support of hydrogen vehicles and establishing infrastructure to support them; and the future growth of alternative energy industries, including the fuel cell and hybrid vehicle industries, and solar industries. All statements included in this report and the documents that we incorporate by reference, other than those that are historical, are forward-looking statements. These statements generally include words such as “may,” “could,” “will,” “should,” “assume,” “expect,” “anticipate,” “plan,” “intend,” “believe,” “predict,” “estimate,” “project”, “forecast,” “outlook,” “potential,” or “continue,” or the negative of these terms, and other comparable terminology. Actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of risks and other factors, including those described in the “Risk Factor” section below, elsewhere in this annual report and in the other filings we make from time to time with the SEC.

All forward-looking statements contained in this annual report are made only as of the date hereof and are based on information currently known to management. We are under no obligation—and we expressly disclaim any such obligation—to update or alter our forward-looking statements, whether as a result of new information, future events or otherwise. You should not place undue reliance on forward-looking statements.

PART I

Item 1. Business.

Overview

We are a fully integrated alternative energy company and a leader in the development and production of advanced propulsion systems, energy storage technologies, and alternative fuel vehicles. We believe that we are uniquely positioned to integrate advanced fuel system, electric drive and battery control system technologies for fuel cell and hybrid vehicles based on our years of experience in vehicle-level design, vehicle electronics and system integration.

Our portfolio of technologies include electronic controls, hybrid electric drive systems, hydrogen storage and metering systems, and alternative fuel technologies that enable fuel efficient, low emission hybrid, plug-in electric hybrid, fuel cell and alternative fuel vehicles. We provide powertrain engineering, system integration, manufacturing and assembly of packaged fuel systems and battery control systems for vehicles and other applications including fuel cells, hybrids, plug-in electric hybrid, alternative fuels, and hydrogen refueling. We also design, engineer and manufacture hybrid and fuel cell vehicles.

Our powertrain engineering, system integration, and assembly capabilities provide fast-to-market solutions to support the production of hybrid and plug-in hybrid, hydrogen-powered hybrid, fuel cell, and alternative fuel vehicles, as well as modular, transportable hydrogen refueling stations. Our customer base includes automotive Original Equipment Manufacturers (OEMs), military and governmental agencies, aerospace, and other strategic alliance partners.

We classify our business operations into two reporting segments: Quantum Fuel Systems and Corporate. The Corporate segment consists of general and administrative expenses incurred at the corporate level that are not directly attributable to the Quantum Fuel Systems segment. In prior years we had a third business segment—Tecstar Automotive Group business segment. As discussed more fully below under Recent Developments, the Tecstar Automotive Group business segment ceased operations on January 16, 2008, when we transferred substantially all of that segment's business operations to an affiliate of our lender. As a result of such transfer, the historical activities of the Tecstar Automotive Group business segment are now classified as discontinued operations. In addition, certain historical indirect expenses of the Corporate segment have been reclassified and are reported as discontinued operations.

Background

We were incorporated in Delaware in October 2000 as Quantum Fuel Systems Technologies Worldwide, Inc., a wholly-owned subsidiary of IMPCO Technologies, Inc (IMPCO). We spun off from IMPCO and became a separate company on July 23, 2002.

On January 16, 2008, we completed a series of transactions that resulted in the disposal of substantially all the assets of the Tecstar Automotive Group business segment. Prior to the disposal, the Tecstar Automotive Group business segment comprised all of the business activities of Tecstar Automotive Group, Inc. and its subsidiaries (Tecstar Automotive Group).

On January 4, 2008, we acquired a 24.9% ownership interest in Asola Advanced and Automotive Solar Systems GmbH (Asola), a solar module manufacturer located in Erfurt, Germany.

On September 28, 2007, our shareholders approved an increase in the number of authorized shares of common stock from 100.0 million to 250.0 million shares, of which 2.0 million are designated as Series B common stock.

On August 7, 2007, we obtained a 62.0% interest in Fisker Automotive, Inc. (Fisker Automotive), a joint venture with Fisker Coachbuild, LLC. As of April 30, 2008, our ownership interest in Fisker Automotive was 30.7% as a result of financing activities completed by Fisker Automotive.

On March 24, 2006, we obtained a 35.5% stake in Vancouver, British Columbia-based Advanced Lithium Power Inc. (ALP). ALP is developing state-of-the-art lithium ion battery and control systems that control state-of-charge and provide for thermal management, resulting in high-performance energy storage. Our interest in ALP has since been diluted to 15.4% as of April 30, 2008 as a result of financing activities completed by ALP.

Business Operations

Fuel Cell, Hybrid and Alternative Fuels Operations

We provide powertrain engineering, system integration, manufacturing and assembly of packaged fuel and battery control systems for a variety of automotive applications including fuel cell, hybrid, and alternative fuel vehicles in the transportation, industrial, and military industries. We also design, engineer and manufacture hybrid and fuel cell concept vehicles and hydrogen refueling systems focused on early infrastructure development. Our hybrid drive and packaged fuel systems comprise the powertrain, storage, injection, regulation, monitoring, and electronics and control systems to improve efficiency, enhance power output, and reduce pollutant emissions from hybrids, plug-in hybrids, internal combustion engines and hydrogen fuel cell systems.

We supply our advanced gaseous fuel systems for alternative fuel vehicles to OEM customers for use by consumers and for commercial and government fleets. Since 1997, we have sold approximately 20,000 fuel systems for alternative fuel vehicles, primarily to General Motors Corporation and its affiliates (General Motors), which in turn have sold substantially all of these vehicles to its customers. We also provide our gaseous fuel systems and hydrogen refueling products for fuel cell applications to major OEMs through funded research and development contracts and on a prototype basis. These fuel cell and hydrogen refueling products are not currently manufactured in high volumes and will require additional product development; however, we believe that a commercial market will begin to develop for our hybrid propulsion system, Q-Drive, within the next two years. We expect a commercial market to develop for our hydrogen and fuel cell vehicle products further in the future. We believe that these systems will reach production volumes only if OEMs produce fuel cell applications and hydrogen products using our systems on a commercial basis.

A number of automotive and industrial manufacturers are developing alternative clean power systems using fuel cells or clean burning gaseous fuels in order to decrease fuel costs, lessen dependence on crude oil and reduce harmful emissions. Our products for these markets consist primarily of fuel storage, fuel delivery, electronic vehicle control systems, lithium ion battery control systems, as well as system integration of our products into fuel cell, hybrid electric, plug-in hybrid electric, alternative fuel vehicles, and hydrogen refueling products, which includes the complete design of fuel cell and hybrid vehicles. We offer the following products and services to enable the development and commercialization of these systems:

- *fuel storage*—advanced composite, ultra-lightweight tanks that provide cost-effective storage of hydrogen or natural gas;
- *fuel delivery*—pressure regulators, fuel injectors, flow control valves, and other components designed to control the pressure, flow and metering of gaseous fuels;
- *electronic vehicle control systems and software*—solid-state components, electronic controls and proprietary software that monitor and optimize fuel flow and drive systems to meet manufacturers' fuel cell, engine or hybrid requirements;
- *lithium ion and advanced battery control systems*—battery management systems, control algorithms, and fully integrated battery packs developed for automotive hybrid and fuel cell applications as well as for energy storage applications for renewable energy, such as solar photovoltaic applications; and

- *systems integration*—services to integrate advanced fuel storage, fuel delivery, electronic vehicle control components, electric drive and battery control systems, power electronics, and other ancillary components to meet OEM requirements, including the complete design of fuel cell and hybrid concept vehicles.

The current market for our packaged fuel and propulsion systems for fuel cell, hybrid and hydrogen applications is the emerging world market for passenger, fleet, industrial and military vehicles powered by fuel cells and hybrid engines, and hydrogen refueling products focused on the early refueling infrastructure needs. We plan to continue the development of our hybrid drive systems and hydrogen vehicle and refueling technologies to meet market opportunities. We are focusing our enabling technology marketing efforts on North America, Europe and Asia-Pacific.

Industry Overview

Fuel Cell and Hydrogen Vehicle Industry

The emerging fuel cell and hydrogen vehicle industry offers a technological option to address increasing worldwide energy costs, the long-term availability of petroleum reserves and environmental concerns. Fuel cell and hydrogen hybrid electric vehicles have emerged as a potential alternative to existing conventional internal combustion engine vehicles because of their higher efficiency, reduced noise and lower tailpipe emissions. Fuel cell industry participants are currently targeting the transportation and hydrogen refueling infrastructure markets. We believe that our hydrogen and hybrid enabling products of fuel storage, fuel delivery and battery and electronic control systems along with our vehicle-level system integration experience can be effectively applied in these markets.

A fuel cell is an electrochemical device that produces electricity by combining hydrogen with oxygen from the air. This electrochemical reaction occurs silently and without combustion, with useable heat and water as the only by-products. The system can use as its base fuel either pure hydrogen or hydrogen derived from hydrocarbon fuels, such as methanol, natural gas or petroleum, using a device called a reformer. A reformer breaks down hydrocarbon fuels using heat and a catalytic process. Regardless of the fuel used to provide hydrogen, the fuel cell system will require on-board hydrogen storage, fuel delivery and electronic controls. We believe that the keys to optimizing the performance of a fuel cell are proper metering and delivery of hydrogen fuel and air to its fuel cell stacks and efficient storage of the fuel to maximize its total operation time; an area that we have expertise in.

Hydrogen as a transportation fuel of the future has been gaining support worldwide. Domestically, President Bush continues to promote his goal of achieving energy independence for the United States, while dramatically improving the environment, which was first expressed in his 2003 State of the Union Address. The Energy Policy Act of 2005 established a comprehensive national policy that includes provisions intended to accelerate the implementation of hydrogen as an energy carrier. The Act includes the authorization of over \$3.2 billion dollar investment through 2010 by the government towards the development, demonstration, and ultimate commercialization of hydrogen and fuel cell technologies. The proposed funding is intended to support the research, development, and demonstration of hydrogen production, storage, distribution and dispensing, and transport. The Energy Bill also supports the research, development, and demonstration of fuel cell systems for stationary and portable power generation as well as for transportation applications, including light- and heavy-duty vehicles.

The U.S. Department of Energy has published the National Hydrogen Energy Roadmap that provides a plan for the coordinated, long-term, public and private efforts required for hydrogen energy development. Alan Niedzwiecki, our President and CEO, led the group responsible for the hydrogen storage section of the Roadmap.

There are now over 100 hydrogen-refueling stations worldwide, with essentially all the stations dispensing compressed hydrogen. In California alone, where Governor Schwarzenegger is actively promoting a "Hydrogen

Highway Network," the aim is to establish 50-100 hydrogen stations by 2010. In addition to signing an executive order that calls for a hydrogen refueling infrastructure throughout California, the Governor continues to support hydrogen technologies and claims that hydrogen is one of the "environmental technologies [that] will allow us to conserve energy, cut pollution and protect our natural resources." Other states that have recently established statewide initiatives to encourage the implementation of hydrogen and fuel cells include Colorado, Florida, Illinois, Michigan, New Mexico, New York and Ohio.

The number of fuel cell and hydrogen demonstration programs is increasing worldwide, other examples which include the California Fuel Cell Partnership, California Stationary Fuel Cell Collaborative, Compressed Hydrogen Infrastructure Program, Clean Energy Partnership in Berlin, Controlled Hydrogen Fleet & Infrastructure Demonstration and Validation Project, Fuel Cell Bus Club, Japan Hydrogen & Fuel Cell Demonstration Project, Hydrogen Highway Network in California, BC Hydrogen Highway in British Columbia, AQMD Test Fleet, Hi Way Initiative, Ruhr-Alps-Milan Hydrogen Supply Chain Integrated Project, Hydrogen Corridor in Canada, Norwegian HyNor Project, Illinois Hydrogen Highway, The Northern H in the Upper Midwest, Singapore's Initiative in Energy Technology, Iceland's SMART-H₂ project, and projects in Hungary, Spain, and the United Kingdom.

In May 2006, we received a purchase order for 15 hydrogen-fueled Toyota Prius hybrid vehicles from Miljobil Grenland AS, a participant and vehicle provider to the Norwegian Hydrogen Highway (HyNor). These hydrogen hybrid vehicles were put in service in Norway beginning in 2006 as part of the HyNor program. HyNor is a unique Norwegian joint public/private partnership initiative to demonstrate real life implementation of hydrogen energy infrastructure along a route of 580 kilometers (360 miles) from Oslo to Stavanger during the years 2005 to 2008. The project comprises all steps required to develop a hydrogen infrastructure and includes various hydrogen production technologies and uses of hydrogen, in all cases with an adaptation to local conditions. In July 2007, we received a purchase order to supply ten hydrogen hybrid Priuses to VistOrka for use in Iceland's SMART-H₂ project. The SMART-H₂ project is one of the largest hydrogen demonstrations in the world. The overall objectives of the HyNor and Icelandic projects are to demonstrate the commercial viability of hydrogen energy production, hydrogen's use in the transportation sector, and the development of a hydrogen infrastructure.

Fuel cell and hydrogen-powered hybrid vehicles are being designed to provide clean, quiet power for a variety of applications in transportation, fleet, industrial and military vehicles. The commercialization of fuel cells in all of these markets will require cost reductions for the entire system, including the fuel cell stack, fuel system, balance-of-plant, and assembly. In March 2008, we announced we were selected by the U.S. Department of Energy for final negotiations for a contract to develop next-generation manufacturing technologies for hydrogen storage vessels. The total value of this project, which will be done in partnership with The Boeing Company, is \$5.6 million over a three year period.

In the automotive market, each of Daimler, Ford, General Motors, Honda, Hyundai, Nissan, and Toyota Motor Corporation has unveiled fuel cell vehicles, with mass production of fuel cell vehicles anticipated by General Motors and Daimler to begin by 2012 to 2015, and by Toyota to begin by 2015. In September 2007, we received a letter from General Motors nominating us as their hydrogen storage vessel supplier for their next generation of hydrogen storage systems under their fuel cell vehicle program. On November 21, 2007 we received initial purchase orders totaling \$4.2 million for the program.

We believe that a market for hybrid vehicles and internal combustion engines powered by hydrogen may also be an enabling strategy to prepare for the emerging hydrogen fuel cell vehicle market. Hydrogen-powered hybrid and other hydrogen vehicles can begin to drive the demand for the refueling infrastructure of this clean fuel, which is a critical component to fuel cell vehicle commercialization. South Coast Air Quality Management District in Southern California is positioning the region to be ready for fuel cell vehicles by initiating a hydrogen-powered hybrid program. In January 2006, our Quantum Fuel Systems segment initiated the delivery of 30 hydrogen hybrid Priuses to participating fleets located in Southern California. The objective of this effort, funded

by the South Coast Air Quality Management District, is to stimulate the early demand for hydrogen, expedite the development of infrastructure, and provide a bridge to fuel cell vehicles. We believe this program will help expedite the expansion of a hydrogen infrastructure and bridge the technology gap between conventional gasoline vehicles and fuel cell vehicles, as this technology of the future is being commercialized. We believe that this can be the model for other markets where fuel cell vehicles will emerge, e.g., North America, Europe and Asia-Pacific, and thus we intend to initially focus our marketing efforts of hydrogen hybrid systems in these areas.

We believe that additional markets for fuel cell technologies will develop in other areas, including boats, forklifts, golf carts, recreational vehicles, auxiliary power units, and military applications. The commercialization of fuel cells in all of these markets will require across-the-board cost reductions for the entire system, including the fuel cell stack, fuel system, balance-of-plant, and assembly. As cost reduction targets are achieved in volume production, we believe that the fuel subsystem will represent approximately 20% of the cost of a fuel cell or hydrogen system.

Commercialization of fuel cell vehicles is dependent upon establishing cost-effective on-board fuel storage solutions, hydrogen storage and handling codes and standards, and a hydrogen-refueling infrastructure. Safety is also a primary concern when dealing with highly compressed gases. The fuel storage systems must be able to withstand rigorous testing as individual components and as part of the fuel system on the vehicle. Safety concerns apply to the fuel system as a whole, including the tank, regulator and fuel lines, all of which need to comply with applicable safety standards. Our operations are ISO/TS 16949 certified and we have performed extensive testing of our fuel storage components and systems which comply with applicable safety standards, including standards developed by the European Integrated Hydrogen Project (EIHP). Additionally, to ensure widespread commercialization, the fuel storage and delivery systems need to provide adequate range, be of acceptable size and shape, and perform similarly to conventionally fueled vehicles without unacceptably high cost. We believe interim steps will be taken by governments to provide initial refueling infrastructure for demonstration fleets, government programs, commercial fleet operators, and initial consumer commercialization. This initial infrastructure could include mobile refueling units, compact stationary refueling units and bulk transport trailers.

Hybrid and Plug-in Hybrid Electric Vehicle Industry

Hybrid electric vehicles use both an electric motor and an internal combustion engine to propel the vehicle. A hybrid is designed to capture energy that is normally lost through braking and coasting to recharge the batteries (regenerative braking), which in turn powers the electric motor without the need for plugging in. The hybrid market is growing. There is a variety of hybrid electric vehicles available to consumers today with more models on the way. Cities across the country are already benefiting from the use of hybrid electric buses in their communities. Advantages of hybrid electric vehicles include: reduced fuel consumption and tailpipe emissions, optimized fuel efficiency and performance, lower fuel costs, and they are able to use the existing gas station infrastructure. The main challenges include the limited availability of components (batteries, powertrains, power electronics) and the higher initial cost. Even with these challenges, the demand for hybrid electric vehicles has continued to increase. J.D. Powers & Associates reports that hybrid electric vehicle sales are expected to triple by 2015 and they project that these vehicles will represent 7% of the total car market in 2015.

Recent advances in batteries and other components have resulted in the emergence of plug-in hybrid electric vehicles (PHEVs). As with other hybrids, a PHEV vehicle has the ability to run on either electricity or an internal combustion engine. PHEVs have a larger battery than the batteries of conventional hybrids that can be recharged by plugging into an appropriate outlet. Recharged vehicles can provide 20-60 miles of all electric, zero emission range without engine power. PHEVs are currently being tested in prototype form and may soon be available for sale. Advantages of plug-in hybrids include: reduced fuel consumption and tailpipe emissions, optimized fuel efficiency and performance, recovered energy from regenerative braking, unchanged gas station infrastructure, grid connection potential, "home based" battery recharging at a fraction of the cost of petroleum equivalent, pure

zero emission capability, even lower fueling costs compared to battery sustaining hybrids, and possible use in secondary markets for used batteries and reduced waste. But, challenges still remain, including cost and complexity of two powertrains, limited component availability (batteries, powertrains, power electronics), higher initial cost, cost of batteries and battery replacement, and added weight. Advanced battery technologies and systems, specifically lithium-ion batteries, are considered to be the key enabling technology for the commercial viability of PHEVs. Such advanced battery technologies are currently under development but are not yet available on a commercial basis.

In March 2007, we were awarded a \$2.1 million contract by California's South Coast Air Quality Management District (AQMD) to develop and demonstrate PHEVs. Under this program, we will develop, manufacture, and deploy 20 Ford Escape PHEVs for demonstration in Southern California and we will utilize our OEM system engineering and vehicle integration methodologies to develop a plug-in hybrid version of the 2008 Ford Escape Hybrid. The PHEV system will be based on integrating a lithium ion battery pack and management system from Advanced Lithium Power, Inc.

In November 2007, we began providing services to Fisker Automotive on an initial concept analysis program associated with powertrain and software control systems for the production intent hybrid-electric vehicle under a \$1.0 million arrangement. Services under the first contract were completed in January 2008. On February 14, 2008, we were awarded a second contract for \$13.5 million for the second phase of the development. Under the second phase, we are developing the powertrain and software control systems and integrating our PHEV architecture we call "Q-Drive" for the Fisker Karma four-door sport sedan production model that is expected to have initial deliveries beginning in the fourth quarter of calendar 2009.

Our hybrid drive system has evolved over five years of innovation and development. Our system takes full advantage of the performance potential of electric drive systems while achieving high fuel mileage and low emissions through its integrated PHEV design. Benefits of our drive system include optimized fuel efficiency and superior performance, unchanged gas station infrastructure, and convenient battery recharging with any 110-volt outlet, 220/240-volt fast-charging, or using our solar energy powered re-charging station.

Products

Fuel and Drive System Products

Our Quantum Fuel Systems segment's core fuel and drive system products include gaseous fuel storage, fuel delivery, electronic vehicle control and drive system controls, and advanced battery control systems for use in OEM fuel cell, alternative fuel and hybrid vehicles. Our advanced enabling products for fuel cell applications are used in transportation and industrial vehicles and hydrogen refueling products for the infrastructure to support fuel cell vehicles. We continue to improve our products and develop new systems to meet increasingly stringent vehicle operational and durability requirements in automotive OEM fuel cell powered vehicles. We are also developing improved system technologies using fuel injectors, high- and low-pressure regulators, on-board diagnostics, high-performance fuel system control modules, fuel lock-offs and related components for application in the stationary and portable power generation fuel cell markets. We design and manufacture computerized controls, regulators and automatic shut-off equipment, and lightweight, high-pressure hydrogen and natural gas storage tanks using advanced composite technology. The categories of our fuel and drive system products include:

Fuel Storage Products. Our fuel storage products include primarily cylindrical tanks and other advanced design storage products that store fuel at high pressures. We provide lightweight, all-composite storage tank technologies for compressed hydrogen and natural gas. The lightweight nature of the tank, coupled with high hydrogen mass by volume, improves the range of hydrogen-powered fuel cell vehicles. Our high-pressure tank maximizes hydrogen storage in a given space, optimizing the volume of hydrogen stored on board. These fuel storage products are production ready and are currently on OEM produced

vehicles. As we continue to advance these technologies, our efforts will be OEM customer driven with a focus on cost reductions, storage efficiencies and weight. We expect a certain portion of any future development costs to be funded by customer-sponsored programs.

Fuel Delivery Products. Our fuel delivery products consist of in-tank and external regulators, injectors and valves. We have designed our in-tank and external regulators for use with hydrogen for fuel cell applications. We have designed our patented fuel injector for use with dry gases such as hydrogen, propane or natural gas. Our fuel injector is capable of handling the high flow rates needed in automotive OEM applications, while offering superior durability, longer life, less noise and lower cost as compared to other gaseous fuel injectors. This component also allows for very precise metering of fuel, which is critical to optimizing a fuel cell system. These fuel delivery products are production ready and are currently on OEM produced vehicles. Advancement of these technologies is focused on application engineering for specific vehicle customization in order to satisfy OEM-specific mechanization and application design. We expect any application development expenses for our fuel delivery products to be funded by customer-sponsored programs.

Electronic Vehicle Control System and Software. Our electronic vehicle control system and software products range from eight- to 32-bit architecture. Certain control products precisely control the flow and pressure of gaseous fuels such as natural gas, hydrogen and other gases such as air. We use our electronic vehicle controls, coupled with our proprietary software, to optimize fuel flow and drive systems in fuel cell, hybrid and internal combustion engine applications. We believe, however, that there are numerous other potential applications for these controls. The development of electronic controls and software is generally driven by a specific application or program and is usually funded by customer-sponsored programs.

Lithium Ion and Advanced Battery Control Systems. Our lithium ion and advanced battery control and software products and fully integrated battery packs are currently in the developmental stage by our affiliate, Advanced Lithium Power. These products are being developed for automotive hybrid, plug-in hybrids and fuel cell applications as well as for energy storage applications for renewable energy, such as solar photovoltaic applications.

Services

We provide services in the areas of design, development, validation, certification, manufacturing, and after-sales service support. We provide our customers with the following services to support their programs for fuel cell vehicles, hydrogen and internal combustion engine vehicles, hybrid vehicles, alternative fuel vehicles and hydrogen refueling applications:

- *Vehicle Design and Prototype Vehicle Builds.* We design complete concept and low-volume production vehicles to demonstrate fuel cell, hybrid and plug-in hybrid vehicle architecture. We also provide complete vehicle builds on a concept and prototype basis.
- *Systems Integration.* We integrate our advanced fuel storage, fuel delivery, electronic vehicle control components, battery control systems, and advanced hybrid drive systems into hybrid vehicles, hydrogen fueled vehicles, fuel cell applications, as well as hydrogen refueling products. We also employ rapid prototyping techniques, which accelerate the iterative design process and result in a more accurate design.
- *Testing and Validation.* To increase the likelihood of high success rates at the system level, we perform component, subsystem and system testing and validation. These procedures must satisfy our own internal requirements, customer-specific requirements and industry standards. If no suitable procedures exist, we generate requirements for the customer.
- *Certification and Compliance.* Our regulatory and certification engineers endeavor to implement the latest emissions and safety regulations in efforts to ensure the proper certification and ongoing compliance of our products and our business.

- *Production Engineering and Manufacturing Process Development.* We provide complete production engineering and manufacturing process development for our limited volume production process as a tier-one OEM automotive supplier and for certain military applications.
- *Vehicle Level Assembly.* We develop and manage the assembly process for integration of our systems into end products at our facilities or at our customers' facilities. We also build complete concept vehicles.
- *Training.* We develop comprehensive technical training for customers that sell and service our products as well as for those that use our products.
- *Service and Warranty.* We have extensive capabilities in developing service procedures and programs for OEMs. We also provide technical support over the telephone or at customer sites to resolve technical issues.

Business Strategy

Our business strategy is to enhance our leadership position as a tier-one automotive supplier of advanced propulsion systems, alternative fuel systems, powertrain engineering, system integration, and assembly. We intend to leverage our alternative fuel, battery system, electronic control, electric and hybrid electric drive system, fuel cell, and hydrogen handling and refueling capabilities and experience to support the growing hybrid vehicle market and the early introduction of hydrogen and fuel cell vehicles. We intend to utilize our tier-one OEM design and assembly capability to provide fast-to-market capabilities to OEMs for the early limited production business as fuel cell, hydrogen-powered hybrid vehicles, hybrids and plug-in hybrids move toward commercialization. We intend to leverage our advanced hydrogen and battery storage technologies into broader energy storage applications, including hybrid electric vehicles and energy storage for renewable energy, such as solar photovoltaic applications, as we establish Quantum as a fully integrated alternative energy company. We also intend to continue to expand our investments and alliances in solar operations, including a US-based solar modularization operation.

Our strategy for achieving these objectives includes the following:

Design, Integrate and Assemble Hydrogen and Other Packaged Fuel and Battery Control Systems and Drive Packages for Fuel Cell Vehicle, Hybrids, Plug-in Hybrids, Alternative Fuel and Other Emerging Applications

We plan to continue to develop our hydrogen and other alternative fuel system technologies, advanced battery control systems and drive system technologies to assist OEMs in expediting the commercialization of fuel cell, hybrid, plug-in hybrid, alternative fuel and specialized vehicle applications. We also plan to develop systems and complete vehicles to assist the military in adopting fuel cell and hybrid technologies. In February 2006, we were selected by the U.S. Army to develop the Hydrogen Escape Hybrid concept, which will continue our expansion into the hybrid vehicle market. We intend to apply our expanded vehicle-level design, powertrain engineering, vehicle electronics and system integration expertise to early development and emerging OEM and military vehicle programs to capture early limited production and assembly of new vehicles. In January 2008, our strategic partner, Fisker Automotive, unveiled the Fisker Karma plug-in hybrid sports sedan, a vehicle platform that will incorporate our proprietary hybrid propulsion system. To date, we have been awarded two programs totaling \$14.5 million from Fisker Automotive to advance and integrate our PHEV architecture. Most of the major automotive OEMs have unveiled hybrid and fuel cell vehicles, and new automotive OEMs are emerging with a focus on hybrid vehicle technology. We plan to continue to develop and refine our packaged fuel systems and hybrid drive packages to capture new customers in a growing fuel cell and hybrid vehicle market.

Increase Our Participation in the Hybrid, Plug-in Hybrid and Hydrogen Hybrid OEM Vehicle Markets

We plan to leverage our technology and systems integration capabilities in the hybrid and plug-in hybrid OEM vehicle markets to expand our customer base and enter new international markets. We have delivered a

hybrid powered light-duty all-terrain vehicle and several hybrid vehicles to the U.S. Army for evaluation. In May 2007, we were awarded a contract to develop a diesel hybrid electric version of our military special operations vehicle. The propulsion system for this phase of development is a battery dominant, series hybrid electric system. In March 2007, we were awarded a \$2.1 million contract by California's South Coast Air Quality Management District (AQMD) to develop and demonstrate PHEVs. We are developing, manufacturing, and deploying 20 Ford Escape PHEVs for demonstration in Southern California. Under this contract, we will utilize our OEM system engineering and vehicle integration methodologies to develop a plug-in hybrid version of the 2008 Ford Escape Hybrid. The PHEV system will be based on integrating a lithium ion battery pack and management system from our affiliate, Advanced Lithium Power. We believe these programs will help expedite the expansion of a new generation of lithium ion-based hybrid vehicles and at the same time bridge the technology gap between conventional gasoline hybrid vehicles and hybrid fuel cell vehicles, as this technology of the future is being commercialized. We believe that significant opportunities for growth exist in the market for hybrids, PHEVs, and hydrogen-powered hybrids. Based on the anticipated market size and projected growth rate for hybrid vehicles across the globe, we have prioritized our business development efforts in Asia-Pacific, Europe and North America.

Expand Our Solar Investments, Relationships, and Alliances

We plan to expand our involvement in solar businesses and alliances. In January 2008, we acquired a 24.9 % equity stake (with an option to increase our ownership to 32.66%) in a German solar energy technology company that develops and manufactures high-efficiency photovoltaic modules for a number of innovative applications, including automotive, residential, and commercial applications. We plan to expand that operation along with the majority equity holder in Europe and involve alliance partners and business operations in Spain, Italy and other parts of Europe. We also plan to assemble solar modules in the United States and assess strategic opportunities in thin film modulization as well as opportunities in solar panel distribution and integration.

Provide Hydrogen-Refueling Units for Initial Infrastructure for Military Applications, Development Fleets and Consumer Commercialization

We plan to leverage our hydrogen storage, metering and control technologies, and integration capabilities to capitalize on the need for mobile and stationary hydrogen refueling units. We believe there are significant opportunities to work with OEMs and energy and petroleum companies in providing the initial refueling products such as mobile refueling units, compact stationary refueling units, and hydrogen storage for bulk transport trailers. In 2005, we also started production of a transportable hydrogen refueler for the U.S. Army. We have grown our programs with the U.S. military to develop advanced fuel cell and hybrid electric vehicle technologies. We plan to continue assisting the military in developing their fuel cell, hybrid electric, and other advanced propulsion system technologies.

Focus Research and Development on Hydrogen and Hybrid Fuel System Technologies and Securing Outside Funding to Support These Programs

We intend to focus our research and development efforts on advancing our hydrogen and hybrid enabling technologies and systems to succeeding generations to further improve performance and reduce cost. We plan to actively seek to establish joint development programs and strategic alliances with the major fuel cell developers, lithium ion battery producers and other industry leaders in these markets and secure outside funding to support these programs. For example, under our alliance with General Motors, we are co-developing technologies that are designed to accelerate the commercialization of fuel cell applications. We are also working with Advanced Lithium Power, Inc., certain aerospace companies, and government agencies in advancing hydrogen and hybrid technologies and developing new applications and solutions.

Leverage Our Hydrogen and Battery Storage Technologies into Broader Energy Storage Applications

We plan to utilize our full array of storage technologies, developed for automotive and refueling applications, in broader applications within the energy industry. The storage of energy is becoming more important with the emergence of renewable energies and the concept of distributed energy. We believe our industry-leading hydrogen storage systems and our affiliate's lithium-ion battery systems can enhance the availability of intermittent renewable resources, like wind and solar by providing cost effective storage options. Our advanced storage technologies provide energy users with the ability to store and utilize energy on demand.

Sales and Distribution

We derive revenue from the sale of our advanced fuel products and hydrogen fuel systems for use in fuel cell and alternative fuel vehicles manufactured by General Motors and other OEMs, development contracts with OEMs, and government contracts focused on hydrogen fuel and hybrid system research. We sell our jointly developed fuel systems and components to General Motors. Through our fuel cell strategic alliance with General Motors, we are a recommended provider to General Motors of hydrogen storage, hydrogen handling and associated electronic controls for fuel cell system applications.

We rely on our sales force and strategic partners to sell our products and services, develop new customers and consummate joint application development programs with leading OEMs in our target markets.

Manufacturing

Our fuel system manufacturing activities currently include assembly, system installation and tank manufacturing. We assemble the majority of our components at our facilities in Irvine and Lake Forest, California, but outsource the assembly of complex electronic components to select key suppliers for certain components of developed fuel systems. Our vendor and service provider supply base is highly diversified, with none of our suppliers representing more than 18% of our raw material purchases. Complete systems are installed on vehicles at the OEM manufacturing facility or at second-stage assembly facilities. The criteria for the establishment of a site are proximity to vehicle manufacturing and delivery points. Our operations are ISO/TS 16949 certified.

Strategic Relationships

We survey and evaluate on an ongoing basis the benefits of joint ventures, acquisitions and strategic alliances with our customers and other participants in the fuel cell and hydrogen vehicle industry and the specialty vehicle manufacturing industry to strengthen our global business position. We have focused our strategic alliances on expanding our market opportunities and advancing the development of our technologies. Our strategic partners include:

General Motors

Our strategic alliance with General Motors began in 2002, upon our spin-off from IMPCO. We believe that the strategic alliance with General Motors will advance and help commercialize, on a global basis, the integration of our gaseous storage and handling systems into fuel cell systems used in the transportation markets. Under the alliance, we, together with General Motors, are co-developing technologies that are designed to accelerate the commercialization of fuel cell applications. Additionally, General Motors endorses us as a recommended provider of hydrogen storage, hydrogen handling and associated electronic controls. This strategic alliance expands upon the relationship that has been in place between General Motors and Quantum (as IMPCO's Automotive OEM Division) since 1993, through which we provide packaged natural gas and propane fuel systems for General Motors' alternative fuel vehicle products.

Under our alliance with General Motors, we have committed to spend \$4.0 million annually for specific research and development projects directed by General Motors to speed the commercialization of our fuel cell related products. Since this commitment was waived or partially waived by General Motors for calendar years 2002 through 2007, we anticipate that this commitment will be waived or partially waived in the future. During fiscal 2008, we spent approximately \$0.1 million for directed research and development activities at the direction of GM. We plan to use jointly created technologies in certain aspects of our business but will be required to share revenue with General Motors on fuel cell system-related products that are sold to General Motors or third parties.

Fisker Automotive

We have an equity stake in Fisker Automotive, a company developing production-intent premium plug-in hybrid automobiles. In January 2008, Fisker Automotive introduced a new 4-door plug-in electric hybrid vehicle that we anticipate will integrate our proprietary high-performance plug-in-hybrid electric vehicle architecture we call "Q-Drive." Fisker Automotive is targeting for initial production volume in the fourth quarter of calendar 2009, with anticipated annual volumes of 7,500 units in calendar 2010 and 15,000 units in calendar 2011.

Asola

We have an equity stake in Asola, a German solar energy technology company that develops and manufactures high-efficiency photovoltaic modules for a number of innovative applications, including automotive, residential, and commercial applications. Asola is underway on its planned expansion to increase its annual manufacturing capacity in Germany to approximately 40 to 45 mega watts peak (MWp) during calendar 2008. We and Asola are in the planning stages to expand our solar modularization capabilities to a US-based operation.

On November 7, 2007 we entered into an agreement with Asola under which we agreed to purchase one-half of Asola's rights and obligations under a certain long-term solar cell supply agreement to which Asola is a party. Asola's obligations under the long-term solar cell supply agreement, dated November 1, 2007, includes the required purchase by Asola of solar cells with a cumulative power of 155 MWp for the period from January 1, 2008 through December 31, 2017 at predetermined fixed prices, with prepayments required by September 1, 2008 of 3.0 million euro and by September 1, 2009 of 5.0 million euro.

Our agreement to purchase one-half of Asola's rights and obligations under Asola's long-term solar cell supply agreement provides us with the rights to purchase 77.5 MWp. In consideration for Asola's sale of one-half of its contract rights to us, we paid Asola 1.0 million euro (US\$1.4 million) on October 29, 2007 and agreed that we are responsible for up to 1.5 million euro of the prepayment due in 2008 and responsible for up to 2.5 million euro of the prepayment due in 2009. We anticipate that Asola will generate cash flows sufficient to cover a portion of the prepayments; however, if there is insufficient cash available within Asola operations, we will endeavor to raise funds specifically for Asola to cover the shortfall. We had not purchased any solar cells from Asola under the arrangement through April 30, 2008.

Advanced Lithium Power Inc.

We have an equity stake in Vancouver, British Columbia-based Advanced Lithium Power Inc. (ALP). ALP is developing state-of-the-art lithium ion battery and control systems that control state-of-charge and provide for thermal management, resulting in high-performance energy storage. ALP's technology has significant opportunities and applications in hybrid electric vehicles, fuel cell vehicles, uninterruptible power supplies, and energy storage for renewable energy, such as solar photovoltaic applications. ALP has initiated a comprehensive testing program to demonstrate and validate the application of its lithium ion battery systems for hybrid and plug-in hybrid electric vehicles. The testing program includes industry standard test protocols established by the United States Advanced Battery Consortium (USABC), Society of Automotive Engineers (SAE), and Underwriters Laboratories (UL). In addition to these industry standards, ALP and Quantum have developed and are implementing additional test procedures for the battery pack to ensure safety under extreme, beyond-industry-standard operating conditions of the battery pack.

As part of our initial investment in ALP, we were granted certain exclusive rights to ALP's patents, know-how, trade secrets and other proprietary information and intellectual property rights pertaining to battery packs and battery management systems for use in the hybrid electric and alternative fuel automotive industries. We intend to leverage this technology along with our existing electronic control, electric and hybrid electric drive system, fuel cell, and hydrogen handling and refueling capabilities and experience to support the growing hybrid vehicle market and the early introduction of hydrogen and fuel cell vehicles.

We have certain voting arrangements and shareholder proxies in place that provide us additional influence in ALP's shareholder matters and we have a veto right on certain decisions at the ALP board level, including third party use of ALP's technology. We also invested CAD\$500,000 in convertible debentures in ALP, which allows us to convert at CAD\$0.12 through December 31, 2008.

Other Strategic Alliances

On April 9, 2007, we announced that we had signed an agreement for the distribution and sale of CNG tanks into international markets for lower cost Type II steel and Type III aluminum-lined, carbon fiber-wrapped, high pressure compressed cylinders. The tanks will be manufactured for us in China.

On April 16, 2007, we announced that we had signed a memorandum of understanding to form a partnership with a Chinese automaker to develop hybrid and alternative fuel vehicles in China.

On May 1, 2007, we announced that we had signed an agreement for the marketing, sales and distribution in India of our alternative fuel vehicle products and systems for CNG, blends of CNG and hydrogen, and LPG.

On March 31, 2008, we announced that we had been selected for final negotiations with the Department of Energy for a contract to develop next generation manufacturing technologies for hydrogen storage vessels to be performed in collaboration with The Boeing Company.

Customers and Development Programs

A substantial portion of our revenue relates to product sales to and development fees from GM. During fiscal year 2008, revenues from GM comprised 64% of our total revenue from continuing operations.

We have had prototype development projects or programs in our continuing operations with the following entities:

Adam Opel AG	Integrated Concepts & Research Corporation
AeroVironment	ISE Research
Air Resources Board	Lockheed Martin Space Systems
Alion Science and Technology	Lotus Engineering, Inc.
American Wind Power & Hydrogen	Missile Defense Agency SBIR
Bekeswind Kft.	Pinnacle West Capital Corporation
Ballard Power Systems	Probe Manufacturing Industries
Catalytic Solutions, Inc.	Proton Energy Systems, Inc.
California Motors LLC	Rochester Institute of Technology
Daimler Chrysler	Roush Performance Products
EDAG Inc.	Saleen, Inc.
Energy Conversion Devices	Select Engineering Services
Fisker Automotive	Shell Hydrogen LLC
Ford Motor Company	South Coast Air Quality Management District
Garrett-Engine Boosting Systems, Inc.	Sumitomo Corporation
General Motors (Fuel Cell Activities)	Suzuki Motor Corporation
General Motors Corporation	Toyota Motor Corporation
General Motors of Canada, Limited	U.S. Army—National Automotive Center
Hydrogenics Corporation	U.S. Army—Tank Automotive Research, Development and Engineering Center
Hyundai America Technical Center	U.S. Department of Energy
Hyundai Motor Company	Yamaha Motor Company

We intend to establish similar relationships with other leading industry OEMs by using our systems integration capabilities and our leading technology position in fuel storage, fuel delivery, hybrid propulsion drive system, and electronic controls.

Research and Product Development

We conduct research and product development in the following areas, with corresponding technical capabilities:

- *Fuel Storage.* Composite pressure vessel design and analysis, carbon and epoxy filament winding, and hydraulic, pneumatic, burst and fatigue testing. Evaluation, testing and integration capabilities for advanced hydrogen storage, including hydride, conformable and other emerging pressure and solid state storage.
- *Electronic Control Systems.* Specialization in hardware design and selection, engine modeling, calibration and software design for engine and emission controls.
- *Lithium ion and advanced battery control systems.* Specialization in developing electronic control systems and software to maximize efficiency and power density in lithium ion battery applications.
- *Mechanical Design and Development.* Specialization in pneumatics, kinematics, hydraulic components and systems, and advanced materials, structural, flow and thermal analysis.

- *Advanced Emissions Testing.* Testing facility that utilizes California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) approved advanced technology to test Super Ultra Low Emission Vehicles. EPA/CARB certification testing, vehicle development testing including catalyst efficiency, diagnostics calibration, engine durability testing, and engine mapping.
- *Advanced Products.* Injectors, fuel management, fuel storage, and fuel supplies for fuel cell power systems, mass flow sensors for natural gas measurement and "smart" sensors using 8-bit microcontrollers.
- *Component and Subsystem Test Facilities.* Extended vibrations, shock loads and accelerations, extreme temperature exposure from -85° F to 392° F, and thermal shock, cyclic corrosion, extended salt, fog, humidity and dryness cycling, severe acid and alkali corrosion, flow simulations, and pneumatic leak checks.
- *Concept Vehicle Development.* Specialization in concept vehicle design and development using powertrain engineering, CAD engineering, and other vehicle development and tooling processes.
- *Vehicle Engineering and Build.* Specialization in designing, engineering and building concept or early adoption type vehicles using vehicle and powertrain and electric drive system engineering, vehicle and system integration, and vehicle packaging.

We believe we are uniquely positioned, based on our research and product development capabilities, as a tier-one automotive supplier in providing vehicle-level design, powertrain engineering, power electronics and wheel motor interfacing, hybrid propulsion systems, system integration, and manufacturing and assembly of packaged fuel systems for automotive applications including fuel cells, hybrids, PHEVs, alternative fuels, and hydrogen refueling.

Competition

In the fuel cell and hydrogen industry, our expertise is in hydrogen fuel storage, fuel delivery, electronic and drive system controls, and system integration. We do not manufacture fuel cells or fuel reformers. We may face competition from companies providing components such as tanks, regulators or injectors. We may also face competition from traditional automotive component suppliers, such as Bosch, Delphi, Siemens, and Visteon, and from OEMs that develop fuel systems internally.

We believe that our competitive advantage over current and potential future competitors is our technology leadership and integration expertise derived from many years of experience with vehicle development and assembly programs. Our current competitors typically focus on individual components. We offer complete packaged fuel systems based on our own advanced technologies, including gaseous fuel storage, fuel metering and electronic controls.

A critical element for hydrogen-based vehicles and OEM alternative fuel vehicles is fuel storage. Our major competitors for high-pressure gaseous storage cylinders include Dynetek Industries Ltd., Lincoln Composites and Structural Composites Inc. Liquid hydrogen, metal hydrides and on-board liquid fuel reformation may also provide alternatives to high-pressure storage. Companies pursuing these competing technologies include Linde AG and Energy Conversion Devices.

The demand for hybrid electric and plug-in hybrid electric vehicles has been increasing in response to consumer demand for vehicles that both meet performance expectations and are fuel efficient. We believe our system integration expertise and the technology of our battery system partner, Advanced Lithium Power, offer a competitive advantage to OEM hybrid vehicle manufacturers. Major competitors for advanced lithium-ion battery cells and complete batteries include A123 Systems, Altair Nanotechnologies Inc., GS Yuasa Battery, NEC, Panasonic, SAFT, Sanyo, and Valence. Battery system developers and suppliers that can be considered competitors include such companies as Cobasys, Johnson Controls, and Hymotion.

Many of these potential competitors have been in business longer than us and have substantially greater financial, marketing and development resources than we have. We expect that we will face increased competition in the future as new competitors enter the market and advanced technologies become available. In addition, consolidation in our industry may also affect our ability to compete. Consolidation may strengthen our competitors' financial, technical and marketing resources and may provide greater access to customers. Consequently, these competitors may be able to develop greater resources for the development, promotion and sale of their products. We cannot assure you that we will be able to compete successfully with our existing or new competitors or that the competitive pressures will not materially and adversely affect our business, financial condition or results of operations.

Safety, Regulation, and Product Certification

The manufacture, distribution and sale of our products are subject to governmental regulations in the United States at the federal, state and local levels. The most extensive regulations are promulgated under the National Traffic and Motor Vehicle Safety Act, which, among other things, empowers the National Highway Traffic Safety Administration (NHTSA) to require a manufacturer to remedy certain "defects related to motor vehicle safety" or vehicles that fail to conform to all applicable federal motor vehicle safety standards.

Federal Motor Vehicle Safety Standards are promulgated by the NHTSA. Many of our products are affected by these standards. We engage various testing companies, which also perform testing for NHTSA, to test certain of our products. NHTSA can require automotive manufacturers to recall products. We have not experienced any material recalls.

Like other automotive manufacturers, we may be subject to claims that our products caused or contributed to damage or injury sustained in vehicle accidents or may be required to recall products deemed to contain defects related to motor vehicle safety. We believe that we are adequately insured for any claims. However, any such claims in excess of our insurance coverage or material product recall expenses could adversely affect our financial condition and results of operations. Promulgation of additional safety standards in the future could require us to incur additional testing and engineering expenses that could adversely affect our results of operations.

We must obtain emission compliance certification from the Environmental Protection Agency (EPA) to introduce vehicles or engines into commerce in the United States, and from the California Air Resources Board to introduce vehicles or engines into commerce in California. Certification requires that each vehicle or engine meet specific component, subsystem and vehicle-level durability, emission, evaporative, and idle tests. Both federal and state authorities have various environmental control standards relating to air, water and noise pollution that affect our business and operations.

Furthermore, we strive to meet stringent industry standards set by various regulatory bodies and industry practices, including the U.S. Department of Transportation and Federal Motor Vehicle Safety Standards, the National Fire Protection Association, TÜV, European Integrated Hydrogen Project, Kouatsugasu Hoan Kyokai, Underwriters Laboratories, and American Gas Association. Approvals enhance the acceptability of our products in the domestic marketplace. Many foreign countries also accept these agency approvals as satisfying the "approval for sale" requirements in their markets.

Our international sales are subject to foreign tariffs and taxes, changes in which are difficult to predict and which can adversely affect sales. Our products must also comply with government safety standards imposed in our foreign markets.

Backlog

As of April 30, 2008, our total backlog was \$22.2 million as compared to \$17.1 million as of April 30, 2007. Our backlog consists of product orders that we believe are firm plus revenue associated with development

service programs under contract that has not yet been recognized under the percentage of completion method. We anticipate that substantially all of the current backlog will be completed by the end of fiscal 2009.

Employees

As of June 10, 2008, we had 118 full-time employees and two (2) part-time employees. In addition to our employee personnel, we utilized four (4) contract laborers in our facilities. During peak production periods, we may increase our work force. Historically, the available labor force has been adequate to meet such periodic requirements. None of our employees are represented by a collective bargaining agreement. We consider our relations with our employees to be good.

Intellectual Property

The continued development and protection of our intellectual property is crucial to our future success. We rely primarily on patent and trade secret laws to protect our intellectual property rights. Although we recognize the importance of patent and trade secret laws and, when appropriate, seek the advantages and benefits these laws offer, we believe that our growth and future success will be more dependent on factors such as the knowledge, experience and expertise of our personnel, new product introductions, continued emphasis on research and development and creation of "know-how".

We do not know whether any patents will be issued from our patent applications or whether the scopes of our issued patents are sufficiently broad to protect our technologies or processes. Our patents may not provide us a competitive advantage. Competitors may successfully challenge the validity and/or scope of our patents and trademarks. We also rely on a combination of trademark, trade secret and other intellectual property laws and various contract rights to protect our proprietary rights. However, we do not believe our intellectual property rights provide significant protection from competition. We believe that establishing and maintaining strong strategic relationships with valued customers and OEMs are the most significant factors protecting us from new competitors.

In connection with our strategic alliance with General Motors, each party retains the ownership of its existing technology and jointly owns technology that is jointly created under the alliance. No jointly owned patents have been received or applied for under the alliance. Under the alliance, each party granted the other certain exclusive and/or nonexclusive licenses with respect to certain intellectual property developed by such party prior to and during the term of the alliance and also with respect to the jointly owned intellectual property. During the term of the alliance, we are subject to certain transfer restrictions with respect to the pledge, hypothecation, encumbrance, sale or licensing of certain intellectual property. Further, we are obligated to share with GM a portion of our revenues generated from the sale of our gaseous storage, handling and control products for fuel cell systems for both automotive and non-automotive applications. The revenue sharing payments continue for a period of 45 years. We do not expect the revenue sharing payments to begin until at least the 2010 fiscal year. Given the uncertainty of the amount of revenues we will generate from the sale of our gaseous storage, handling and control products in future years, we are unable to quantify the amount of revenue sharing payments we will be required to make to GM, if any.

In October 2002, we entered into a patent cross license agreement with GFI Control Systems, Inc. in connection with the parties' mutual agreement to dismiss claims against each other for patent infringement. Pursuant to the agreement, we granted GFI a royalty-free, nonexclusive license to sell products utilizing in-tank regulators covered by our in-tank regulator patent, and GFI granted us a royalty-free, nonexclusive license to sell products utilizing in-tank solenoid valves covered by its in-tank solenoid valve patent, in each case so long as the in-tank regulators and solenoid valves are used together. In the event that the patent covering our in-tank regulator is invalidated, we will be required to pay a five percent royalty to GFI for our use of technology covered by GFI's patent, so long as its patent is not invalidated. The competitive advantage that we believe can be achieved through the intellectual property related to our in-tank regulators may not be fully realized to the extent that GFI uses our in-tank regulator patent to compete with us.

W. Brian Olson has served as Chief Financial Officer and Treasurer since August 2002. From July 1999 to August 2002, Mr. Olson served as Treasurer, Vice President and Chief Financial Officer of IMPCO. He originally joined IMPCO in October 1994 and held various financial positions with IMPCO, including serving as Corporate Controller. Prior to joining IMPCO, Mr. Olson was with the public accounting firm of Ernst & Young LLP and its Kenneth Leventhal Group. Mr. Olson holds a B.S. degree in business and operations management from Western Illinois University and an M.B.A. degree in finance and economic policy from the University of Southern California. Mr. Olson is a Certified Financial Manager and a Certified Management Accountant.

Bradley J. Timon has served as Corporate Controller and Chief Accounting Officer since April 2004. Prior to joining us, Mr. Timon worked as a financial consultant. From June 1998 to October 2001, Mr. Timon was with CORE, INC. serving as the Corporate Controller through the period of January 2001 and then as Acting Chief Financial Officer until the corporate operations were closed pursuant to a merger. Between September 1995 and May 1998, Mr. Timon served as a Controller for James Hardie Industries. Before entering private industry, Mr. Timon was with the public accounting firm KPMG from 1989 to 1995. Mr. Timon has a B.A. in accounting from California State University, Fullerton and is a Certified Public Accountant.

Kenneth R. Lombardo has served as Vice President and General Counsel since May 2005 and became Corporate Secretary in September 2005. From March 1996 to May 2005, Mr. Lombardo practiced law at Kerr, Russell and Weber, PLC in Detroit, Michigan, where he specialized in mergers and acquisitions, taxation, corporate and business law. Mr. Lombardo is also a certified public accountant with over six years of audit and tax experience with Deloitte & Touche. Mr. Lombardo received his law degree from Wayne State University Law School and a Bachelor of Science degree in Business Administration, with a major in Accounting, from Central Michigan University.

Item 1A. Risk Factors.

This annual report, including the Management's Discussion and Analysis of Financial Condition and Results of Operations, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. We face a number of risks and uncertainties that could cause actual results or events to differ materially from those contained in any forward-looking statement. The risks and other factors, including those considered in connection with the disposal of substantially all the assets of the Tecstar Automotive Group business segment, that could cause or contribute to such differences include, but are not limited to, the following:

Risks related to Liquidity and Capital Resources

We anticipate that we will need to raise additional financing to take advantage of strategic business opportunities, to complete product and application development, to expand operations, to fund future operating activities and contractual commitments, and/or pay off or refinance debt.

Our long-term future cash requirements will depend on numerous factors, including increasing our revenues, completion of our product development activities, our ability to commercialize our propulsion and fuel systems, market acceptance of our products and controlling costs. We expect to devote substantial capital resources to fund expected losses, continue development programs, developing a manufacturing infrastructure for our products and meeting our short and long term debt obligations.

We anticipate that we will need to raise additional funds for strategic business opportunities, to achieve commercialization of our products, to develop facilities for mass production of those products, and to fund future operating activities and contractual commitments. If we do not generate sufficient cash flow from operations or if we are unable to issue a sufficient number of shares of our common stock to satisfy our debt obligations, we may also need to raise additional funds to pay off or refinance these debt obligations. The amount of additional financing that we may need to raise cannot be reasonably estimated at this time but will be directly related to our ability to increase revenues and control costs. We believe such financing can be adequately sourced through

As part of our investment in ALP, we were granted certain exclusive rights with respect to ALP's licensed patents, know-how, trade secrets and other proprietary information and intellectual property rights pertaining to battery packs and battery management systems for use in hybrid electric and alternative fuel industries. We have veto rights on certain decisions at the board level, including third party use of ALP's technology. We intend to leverage this technology along with our existing electronic control, electric and hybrid electric drive system, fuel cell, and hydrogen handling and refueling capabilities and experience to support the growing hybrid vehicle market and the early introduction of hydrogen and fuel cell vehicles.

Available Information

We make our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, and all amendments to these reports available free of charge on our corporate website as soon as reasonably practicable after such reports are filed with, or furnished to, the SEC. Our corporate website is located at www.qttw.com. None of the information contained on our website is intended to be part of this report or incorporated by reference herein.

Executive Officers

Our executive officers as of April 30, 2008 and their respective ages and positions were as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Alan P. Niedzwiecki	51	President; Chief Executive Officer; Director
Jeffrey P. Beitzel	53	Chief Operating Officer; Director
W. Brian Olson	44	Chief Financial Officer; Treasurer
Bradley J. Timon	45	Corporate Controller; Chief Accounting Officer
Kenneth R. Lombardo	42	Vice President-Legal; General Counsel and Corporate Secretary

The following is a biographical summary of the experience of the executive officers:

Alan P. Niedzwiecki has served as President and as one of our directors since February 2002 and was appointed as Chief Executive Officer in August 2002. Mr. Niedzwiecki served as Chief Operating Officer from November 2001 until he was appointed as Chief Executive Officer in August 2002. From October 1999 to November 2001, Mr. Niedzwiecki served as Executive Director of Sales and Marketing. From February 1990 to October 1999, Mr. Niedzwiecki was President of NGV Corporation, an engineering and marketing/commercialization consulting company. Mr. Niedzwiecki has more than 25 years of experience in the alternative fuels industry in product and technology development and commercialization relating to mobile, stationary power generation and refueling infrastructure solutions. Mr. Niedzwiecki is a graduate of Southern Alberta Institute of Technology.

Jeffrey P. Beitzel has served as Quantum's Chief Operating Officer and as a member of our Board of Directors since March 2005. He previously served as a director and Co-Chief Executive Officer of Tecstar Automotive Group and its subsidiaries. Mr. Beitzel founded and owned several automotive companies since leaving an engineering position with Ford Motor Company in 1983. These businesses have generally focused on converting automotive design concepts into limited volume production for OEMs. Mr. Beitzel has a B.S. degree in Mechanical Engineering from Lehigh University. Mr. Beitzel is currently on paid medical disability leave and we do not have an estimate of when, or if, he will return to continue carrying out his duties as Chief Operating Officer on a full time basis. Mr. Beitzel's medical leave of absence was designated by the Company as long-term disability beginning as of April 8, 2008. To date, we have not named another individual to act as our Chief Operating Officer; however, our Chief Executive Officer and Chief Financial Officer are overseeing certain functions previously carried out by the Chief Operating Officer, as necessary, until he returns or until another Chief Operating Officer is named.

W. Brian Olson has served as Chief Financial Officer and Treasurer since August 2002. From July 1999 to August 2002, Mr. Olson served as Treasurer, Vice President and Chief Financial Officer of IMPCO. He originally joined IMPCO in October 1994 and held various financial positions with IMPCO, including serving as Corporate Controller. Prior to joining IMPCO, Mr. Olson was with the public accounting firm of Ernst & Young LLP and its Kenneth Leventhal Group. Mr. Olson holds a B.S. degree in business and operations management from Western Illinois University and an M.B.A. degree in finance and economic policy from the University of Southern California. Mr. Olson is a Certified Financial Manager and a Certified Management Accountant.

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Item 1A. Risk Factors.

This annual report, including the Management's Discussion and Analysis of Financial Condition and Results of Operations, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. We face a number of risks and uncertainties that could cause actual results or events to differ materially from those contained in any forward-looking statement. The risks and other factors, including those considered in connection with the disposal of substantially all the assets of the Tecstar Automotive Group business segment, that could cause or contribute to such differences include, but are not limited to, the following:

Risks related to Liquidity and Capital Resources

We anticipate that we will need to raise additional financing to take advantage of strategic business opportunities, to complete product and application development, to expand operations, to fund future operating activities and contractual commitments, and/or pay off or refinance debt.

Our long-term future cash requirements will depend on numerous factors, including increasing our revenues, completion of our product development activities, our ability to commercialize our propulsion and fuel systems, market acceptance of our products and controlling costs. We expect to devote substantial capital resources to fund expected losses, continue development programs, developing a manufacturing infrastructure for our products and meeting our short and long term debt obligations.

We anticipate that we will need to raise additional funds for strategic business opportunities, to achieve commercialization of our products, to develop facilities for mass production of those products, and to fund future operating activities and contractual commitments. If we do not generate sufficient cash flow from operations or if we are unable to issue a sufficient number of shares of our common stock to satisfy our debt obligations, we may also need to raise additional funds to pay off or refinance these debt obligations. The amount of additional financing that we may need to raise cannot be reasonably estimated at this time but will be directly related to our ability to increase revenues and control costs. We believe such financing can be adequately sourced through

public or private offerings of equity or debt securities; however, we cannot provide any assurances that we will be able to secure additional funding on terms acceptable to us, if at all. If additional funds are raised through the issuance of equity securities, the percentage ownership of our then-current stockholders will be reduced. If adequate funds are not available to satisfy long-term operating and capital requirements, we may be required to limit operations in a manner inconsistent with our development and commercialization plans, which could adversely affect operations in future periods.

We may not be able to obtain waivers of potential defaults in the future from our lender if we do not meet future requirements associated with our amended credit facility and convertible promissory note.

We received waivers of defaults from our lender on December 14, 2007 and on January 16, 2008 related to our non-compliance with certain required debt service payments. We cannot provide any assurance that our lender would provide us with a waiver should we not be in compliance in the future. A failure to maintain compliance along with our lender not agreeing to a waiver for the non-compliance would cause the outstanding borrowings to be in default and payable on demand which would have a material adverse effect on us.

We have a history of operating losses and negative cash flow that may continue into the foreseeable future.

We have a history of operating losses and negative cash flow. We believe that we have a long-term strategy in place that will allow us to operate profitably in the future. However, if we fail to execute our strategy to achieve and maintain profitability in the future, investors could lose confidence in the value of our common stock, which could cause our stock price to decline and adversely affect our ability to raise additional capital.

We have spent significant funds to develop and refine our technologies and services. We expect to continue to invest in research and development, and this investment could outpace revenue growth, which would hinder our ability to achieve and maintain profitability.

Future sales of substantial amounts of our common stock could affect its market price.

Future sales of substantial amounts of our common stock into the public market, including shares issued upon exercise of options, warrants, convertible debt and subsequent offerings, could adversely affect the prevailing market price of our common stock. To the extent that holders of a significant number of shares of our common stock choose to liquidate their investments in us, sales of such shares could have a negative impact upon the price of our common stock, particularly in the short term.

Our shareholders are subject to significant dilution upon the occurrence of certain events such as the exercise of outstanding options, warrants and convertible debt and the issuance of shares to pay debt.

We have approximately 43 million shares of our common stock that are issuable upon exercise of stock options, warrants and convertible debt. Under our credit facility, we also have the right to pay the principal amounts due under our credit agreement in shares of our common stock. Based on our outstanding obligations under the credit facility and our closing share price as of May 30, 2008, we would require approximately 22 million shares to satisfy the principal amounts due. The potential issuance of approximately 65 million shares upon exercise of stock options, warrants and convertible debt and as payment of the principal due under the term notes associated with our credit facility will be dilutive to our existing shareholders. In addition, the exercise price on certain of our outstanding warrants will be reset if we sell or issue securities at a price below \$1.50. If such reset provisions are triggered, it will have a further dilutive effect on our existing shareholders.

The market price and trading volume of our common stock may be volatile.

Prior to July 2002, there was no trading market for our common stock. Since our common stock began trading in July 2002, its market price and trading volume have been volatile. The market price of our common stock could continue to fluctuate significantly for many reasons, including in response to the risk factors described in this annual report or for reasons unrelated to our specific performance. In recent years, the stock market has experienced extreme price and volume fluctuations. This volatility has affected the market prices of

securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the market price and trading volume of our common stock. Prices for our common stock may also be influenced by the depth and liquidity of the market for our common stock, investor perceptions about us and our business, our future financial results, the absence of cash dividends on our common stock and general economic and market conditions. In the past, securities class action litigation has often been instituted against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and could divert our management and other resources.

An increase in the principal amount due under a \$10.0 million term note we issued on January 16, 2008 and amended on May 30, 2008 could have a material effect on our financial statements as a result of an upward adjustment clause in the credit facility.

On January 16, 2008 we issued a term note with an initial principal balance of \$10 million (Term Note B). The principal amount due under the term note is subject to upward adjustment based upon a fixed formula that is tied to the price of our common stock. After the amendment to the Term Note B that occurred on May 30, 2008, the maximum amount of the principal that could be payable under the note is \$52.5 million. We anticipate that we will record a noncash interest charge in our statement of operations equal to the change in the fair value of Term Note B from the date of issuance to the date of the amendment in the first quarter of fiscal 2009 and the amount of such interest charge could be substantial. In addition, any future change in the upward adjustment of Term Note B will require an interest charge to the statement of operations in the period such payments are made, and such interest charges could be substantial. We have the option to repay the principal in cash or stock; however, there is a risk that increases in the principal as a result of the upward adjustment will make it difficult for us to repay the principal in cash when it becomes due.

Our future operating results may fluctuate, which could result in a lower price for our common stock.

The market price of our common stock may decline below currently prevailing levels. The market price of our common stock may be adversely affected by numerous factors, including:

- actual or anticipated fluctuations in our operating results;
- changes in financial estimates by securities analysts;
- interest charges related to Term Note B described in the risk factor immediately above; and
- general market and industry conditions and other factors.

We have a commitment to provide a guaranty to an affiliate's credit facility that could be called upon if the affiliate defaults on the credit facility in the future.

In connection with our acquisition of an ownership interest in Asola, we have committed to provide a 1.0 million euro guaranty to Asola's bank associated with Asola's anticipated expanded credit facility for additional capital equipment. If Asola were to default on the credit facility in the future, we could be called upon to repay the credit facility up to the limit of our guaranty.

Other Risks Related to our Business

Our business depends on the growth of hybrid and hydrogen based vehicles and the solar industry.

Our future success depends on the continued expansion of hybrid electric and hydrogen based vehicles and the solar industry. The market for these types of vehicles and for solar technologies and products is influenced by and our sales may be negatively impacted by a number of factors some of which include the level of oil prices, battery durability improvements, levels of investment tax credits and regulation, availability of raw materials for photovoltaic module production, interest rates and consumer disposable income.

Additionally, we cannot assure you that the markets for hybrid electric vehicles and fuel cells or hydrogen-based vehicles will gain broad acceptance or, if they do, that they will result in increased sales of our hybrid vehicles and advanced fuel system products. Our business depends on auto manufacturers' timing for

pre-production development programs and commercial production. If there are delays in the advancement of OEM fuel cell technologies or in our OEM customers' internal plans for commercialization, our financial results could be adversely affected.

Our ability to design and manufacture fuel systems and powertrains for fuel cell, hydrogen and hybrid applications that can be integrated into new vehicle platforms will be critical to our business and our ability to successfully complete existing development programs.

We are currently developing and integrating an advanced hybrid propulsion system for a production intent vehicle. This hybrid electric drive system, including a battery software management system, is being designed to meet strict design and packaging requirements of our affiliate, Fisker Automotive. In addition, we currently offer packaged fuel systems, which include tanks, brackets, electronics, software and other components required to allow these products to operate in fuel cells, hybrids, or other alternative fuel applications. Customers for these systems require that these products meet either their strict design standards or OEM level standards that can vary by jurisdiction. Compliance with these requirements has resulted in increased development, manufacturing, warranty and administrative costs. A significant increase in these costs could adversely affect our business, results of operations and financial condition. If we fail to meet OEM or customer specifications on a timely basis, our existing or future relationships with our OEM and other customers may be harmed, which would have a material adverse effect on our business, results of operations and financial condition.

To be commercially viable, our products and systems generally must be integrated into products manufactured by OEMs. We can offer no assurance that OEMs will manufacture appropriate products or, if they do manufacture such products, that they will choose to use our fuel cell products and systems. Any integration, design, manufacturing or marketing problems encountered by OEMs could adversely affect the market for our fuel cell products and systems and our business, results of operations and financial condition.

Our business revenue depends to a significant extent on our relationship with General Motors and General Motors' commitment to the commercialization of fuel cell vehicles.

Our business and results of operations would be materially adversely affected if General Motors were to terminate its relationship with us. Our ability to sell our products to the fuel cell automotive OEM markets depends to a significant extent upon General Motors' and its partners' worldwide sales and distribution network and service capabilities. Any change in strategy by General Motors with respect to fuel cells could harm our business by reducing or eliminating a substantial portion of our sales, whether as a result of market, economic or competitive pressures, including any decision by General Motors:

- to alter its commitment to our fuel storage, fuel delivery and electronic control technology in favor of other competing technologies;
- to exit the automotive OEM alternative fuel or fuel cell markets;
- to develop fuel cells or alternative fuel systems targeted at different application markets from ours; or
- to focus on different energy product solutions.

In addition, pursuant to our agreement with General Motors, we are required to spend \$4.0 million annually on joint research and development projects directed by General Motors over a ten-year term that commenced in July 2002. Although this commitment was waived or partially waived by General Motors for calendar years 2002 through 2007, we cannot provide any assurance that GM will continue to waive this commitment in whole or part in the future. The annual commitment under our agreement with General Motors could be financially burdensome and may impact our ability to achieve profitability in the future. Where intellectual property is developed pursuant to this alliance, we have committed to provide certain exclusive or non-exclusive licenses in favor of General Motors, and in some cases the developed intellectual property will be jointly owned. As a result of such licenses, we may be limited or precluded, as the case may be, in the exploitation of such intellectual property rights.

Our revenue is highly concentrated among a small number of customers.

A large percentage of our revenue is typically derived from a small number of customers and we expect this trend to continue. Our customer arrangements generally are non-exclusive, have no long-term volume commitments and are often done on a purchase order basis. We cannot be certain that customers that have accounted for significant revenue in past periods will continue to purchase our products. Accordingly, our revenue and results of operations may vary substantially from period to period. We are also subject to credit risk associated with the concentration of our accounts receivable from our customers. If one or more of our significant customers were to cease doing business with us, significantly reduce or delay its purchases from us or fail to pay us on a timely basis, our business, financial condition and results of operations could be materially adversely affected.

Decrease in demand or price for solar cells could have an adverse effect on our financial statements.

We have entered into a long-term supply agreement under which we have agreed to purchase solar cells with a cumulative power of 77.5 mega watts peak (MWp) through December 31, 2017 at pre-determined quantities that could cause us to hold larger than expected quantities of inventory on hand as a result of future decreased demand, and at pre-determined prices that could be above market rates in the future that could cause us to incur losses on the sale of products manufactured utilizing the solar cells.

Past acquisitions and any future acquisitions, equity investments, joint ventures, strategic alliances or other similar transactions may not be successful.

We have consummated and may continue to consummate acquisitions, equity investments, joint ventures and strategic alliances in order to provide increased capabilities to our existing products, supply new products and services or enhance our distribution channels. We expect to continue to make strategic acquisitions of and investments in other businesses that offer complementary products, services and technologies, augment our market segment coverage, geographic locations, or enhance our technological capabilities. We may also enter into strategic alliances or joint ventures to achieve these goals. If we fail to integrate acquired businesses successfully into our existing businesses, or incur unforeseen expenses in consummating future acquisitions or other investments, we could incur unanticipated expenses and losses.

We cannot assure you that we will be able to identify suitable acquisition, investment, alliance, or joint venture opportunities or that we will be able to consummate any such transactions or relationships on terms and conditions acceptable to us, or that those transactions or relationships will be successful.

Any transactions or relationships will be accompanied by the risks commonly encountered with those matters. Risks that could have a material adverse affect on our business, results of operations or financial condition include, among other things:

- the difficulty of assimilating the operations and personnel of acquired businesses;
- the potential disruption of our ongoing business;
- the distraction of management from our business;
- the unexpected loss of customers of the acquired business;
- the potential inability of management to maximize our financial and strategic position as a result of an acquisition or investment;
- the potential for costs and delays in implementing, and the potential difficulty in maintaining uniform standards, controls, procedures and policies, including the integration of different information systems;
- the impairment of relationships with employees and customers as a result of any integration of new management personnel;

- the risk of entering market segments in which we have no or limited direct prior experience and where competitors in such market segments have stronger market segment positions;
- the risk that there could be deficiencies in the internal control of any acquired company or investments that could result in a material weakness in our overall internal controls taken as a whole;
- the potential loss of key employees of an acquired company; and
- the potential dilution of earnings through acquisitions and options granted to employees of acquired companies or businesses.

Future acquisitions or investments could result in our incurrence of additional debt and contingent liabilities, including environmental, tax or other liabilities. These liabilities could have a material adverse effect on our business, our ability to generate cash and ability to make required payments on our debt.

Future acquisitions could harm our operating results and share price.

Any acquisitions could materially harm our operating results as a result of issuances of dilutive equity securities or payment of cash. In addition, the purchase price of any acquired businesses may exceed the current fair values of the net tangible assets of the acquired businesses. As a result, we would be required to record material amounts of goodwill, and other intangible assets, which could result in significant impairment and amortization expense in future periods. These charges, in addition to the results of operations of such acquired businesses, could have a material adverse effect on our business, financial condition, cash flows and results of operations. We cannot forecast the number, timing or size of future acquisitions, or the effect that any such acquisitions might have on our operating or financial results.

We could become subject to stockholder litigation associated with our merger with and subsequent disposition of the Tecstar Automotive Group business segment.

Stockholders of companies involved in mergers sometimes file lawsuits that allege, among other things, improprieties in the manner in which mergers or dispositions of business units were approved or executed. We are not aware of any stockholder claims or potential claims with respect to our merger with or subsequent disposition of the Tecstar Automotive Group business segment, but such claims could arise in the future. Any such claims, whether or not resolved in our favor, could divert our management and other resources from the operation of our business and otherwise result in unexpected and substantial expenses that adversely and materially impact our operating results.

We may never be able to introduce commercially viable hydrogen products and hybrid propulsion systems.

We do not know whether or when we will successfully introduce commercially viable hydrogen products and hybrid propulsion systems. We have produced and are currently demonstrating a number of test and evaluation systems and are continuing efforts to decrease the costs of these systems and to improve their overall functionality and efficiency. However, we must complete substantial additional research and development on these hydrogen and hybrid propulsion systems before we can introduce commercially viable hydrogen products and hybrid propulsion systems. Even if we are able to do so, these efforts will still depend upon the success of other companies in producing related and necessary products for use in conjunction with commercially viable fuel cells, hybrids and other hydrogen applications.

A mass market for hydrogen products and systems may never develop or may take longer to develop than anticipated.

Fuel cell and hydrogen systems represent emerging technologies, and we do not know whether consumers will adopt these technologies on a large scale or whether OEMs will incorporate these technologies into their products. In particular, if a mass market fails to develop, or develops more slowly than anticipated, for hydrogen

powered transportation applications, we may be unable to recover our expenditures to develop our fuel systems for hydrogen applications and may be unable to achieve or maintain profitability, any of which could negatively impact our business. Estimates for the development of a mass market for fuel cell products and systems have lengthened in recent years. Many factors that are beyond our control may have a negative effect on the development of a mass market for fuel cells and our fuel systems for hydrogen applications. These factors include the following:

- cost competitiveness and physical size of fuel cell systems and “balance of plant” components;
- availability, future costs and safety of hydrogen, natural gas and other potential fuel cell fuels;
- consumer acceptance of hydrogen or alternative fuel products;
- government funding and support for the development of hydrogen vehicles and hydrogen fuel infrastructure;
- the willingness of OEMs to replace current technology;
- consumer perceptions of hydrogen systems;
- regulatory requirements; and
- emergence of newer, breakthrough technologies and products within the automotive industry.

Evolving customer design requirements, product specifications and testing procedures could cause order delays or cancellations.

We have experienced delays in shipping our products as a result of changing customer specifications and testing procedures. Due to the dynamic nature of hydrogen fuel cell and hybrid technology, changes in specifications are common and may continue to result in delayed shipments, order cancellations or higher production costs. Evolving design requirements or product specifications may adversely affect our business or financial results.

We depend on third-party suppliers for the supply of materials and components for our products.

A supplier’s failure to supply materials or components in a timely manner, or to supply materials and components that meet our quality, quantity or cost requirements, or our inability to obtain substitute sources for these materials and components in a timely manner or on terms acceptable to us, could harm our ability to manufacture fuel systems for our fuel cell applications or our ability to manufacture our hybrid propulsion system and other products. In particular, components that we integrate in our hydrogen fuel regulation systems need to be compatible with hydrogen. To the extent materials need to be tested and replaced to ensure compatibility, we may experience delays in shipping our hydrogen fuel regulation systems or complete packaged fuel systems. Additionally, a delay in the delivery of components, such as battery packs for our hybrid propulsion system or materials used in our other products, such as high-strength fiber, from our current suppliers or a change to other suppliers would likely delay the production of our products that use those components or materials, which could negatively impact our business, results of operations and financial condition.

The terms and enforceability of many of our strategic partner relationships are uncertain.

We have entered into relationships with strategic partners for design, product development and distribution of our existing products, and products under development, some of which may not have been documented by a definitive agreement. Where definitive agreements govern the relationships between us and our partners, the terms and conditions of many of these agreements allow for termination by the partners. Termination of any of these agreements could adversely affect our ability to design, develop and distribute these products to the marketplace. In many cases, these strategic relationships are governed by a memorandum of understanding or a letter of intent. We cannot assure you that we will be able to successfully negotiate and execute definitive agreements with any of these potential partners, and failure to do so may effectively terminate the relevant relationship.

We currently face and will continue to face significant competition.

Our products face and will continue to face significant competition. New developments in technology may negatively affect the development or sale of some or all of our products or make our products uncompetitive or obsolete. Other companies, many of which have substantially greater resources, are currently engaged in the development of hydrogen and hybrid propulsion products and technologies that are similar to, or may be competitive with, certain of our products and technologies.

Because the fuel cell and hybrid propulsion technologies have the potential to replace existing power sources, competition for fuel cell and hybrid products will come from current power technologies, from improvements to current power technologies and from new alternative power technologies. Increases in the market for alternative fueled vehicles may cause OEMs to find it advantageous to develop and produce their own hybrid propulsion or fuel management equipment rather than purchase the equipment from us. In addition, greater acceptance of electric vehicles and alternative fuel engines or fuel cells may result in new competitors. Furthermore, there are competitors, including OEMs, working on developing other fuel cell and hybrid vehicle technologies in our targeted markets. A large number of corporations, national laboratories and universities in the United States, Canada, Europe and Japan possess fuel cell and hybrid vehicle technology and/or are actively engaged in the development and manufacture of fuel cells and hybrid vehicles. Each of these competitors has the potential to capture market share in various markets, which would have a material adverse effect on our position in the industry and our business, results of operations and financial condition. Many of our competitors have financial resources, customer bases, businesses or other resources which give them significant competitive advantages.

We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our future growth and success.

Our failure to protect our existing intellectual property rights may result in the loss of exclusivity or the right to use our technologies. If we do not adequately ensure our freedom to use certain technology, we may have to pay others for rights to use their intellectual property, pay damages for infringement or misappropriation, and/or be enjoined from using such intellectual property.

We have not conducted formal evaluations to confirm that our technology and products do not or will not infringe upon the intellectual property rights of third parties. As a result, we cannot be certain that our technology and products do not or will not infringe upon the intellectual property rights of third parties. If infringement were to occur, our development, manufacturing, sales and distribution of such technology or products may be disrupted.

We rely on patent, trade secret, trademark and copyright law to protect our intellectual property. Our patent position is subject to complex factual and legal issues that may give rise to uncertainty as to the validity, scope and enforceability of a particular patent. Accordingly, we cannot assure you that any of the patents we have filed or other patents that third parties license to us will not be invalidated (especially in light of the potentially adverse implications of our abandoned reissue application and agreement with Dynetek Industries Ltd. in which we agreed not to assert claims with respect to our in-tank regulator patent), circumvented, challenged, rendered unenforceable, or licensed to others or that any of our pending or future patent applications will be issued with the breadth of claim coverage we seek, if issued at all.

Effective patent, trademark, copyright and trade secret protection may be unavailable, limited or not applied for in certain foreign countries. For instance, it may be difficult for us to enforce certain of our intellectual property rights against third parties who may have inappropriately acquired interests in our intellectual property rights by filing unauthorized trademark applications in foreign countries to register our marks because of their familiarity with our business in the United States.

Some of our proprietary intellectual property is not protected by any patent or patent application, and, despite our precautions, it may be possible for third parties to obtain and use such intellectual property without authorization. We have generally sought to protect such proprietary intellectual property in part by confidentiality agreements and, if applicable, inventors' rights agreements with strategic partners and employees, although such agreements have not been put in place in every instance. We cannot guarantee that these agreements adequately protect our trade secrets and other intellectual property or proprietary rights. In addition, we cannot assure you that these agreements will not be breached, that we will have adequate remedies for any breach or that such persons or institutions will not assert rights to intellectual property arising out of these relationships. Furthermore, the steps we have taken and may take in the future may not prevent misappropriation of our solutions or technologies, particularly in respect of officers and employees who are no longer employed by us or in foreign countries where laws or law enforcement practices may not protect our proprietary rights as fully as in the United States.

Our failure to obtain or maintain the right to use certain intellectual property may negatively affect our business.

Our future success and competitive position depends in part upon our ability to obtain or maintain certain proprietary intellectual property used in our principal products. This may be achieved, in part, by prosecuting claims against others who we believe are infringing our rights and by defending claims of intellectual property infringement brought by others. While we are not currently engaged in any material intellectual property litigation, in the future we may commence lawsuits against others if we believe they have infringed our rights, or we may become subject to lawsuits alleging that we have infringed the intellectual property rights of others. For example, to the extent that we have previously incorporated third-party technology and/or know-how into certain products for which we do not have sufficient license rights, we could incur substantial litigation costs, be forced to pay substantial damages or royalties, or even be forced to cease sales in the event any owner of such technology or know-how were to challenge our subsequent sale of such products (and any progeny thereof). In addition, to the extent that we discover or have discovered third-party patents that may be applicable to products or processes in development, we may need to take steps to avoid claims of possible infringement, including obtaining non-infringement or invalidity opinions and, when necessary, re-designing or re-engineering products. However, we cannot assure you that these precautions will allow us to successfully avoid infringement claims. Our involvement in intellectual property litigation could result in significant expense to us, adversely affect the development of sales of the challenged product or intellectual property and divert the efforts of our technical and management personnel, whether or not such litigation is resolved in our favor. In the event of an adverse outcome in any such litigation, we may, among other things, be required to:

- pay substantial damages;
- cease the development, manufacture, use, sale or importation of products that infringe upon other patented intellectual property;
- expend significant resources to develop or acquire non-infringing intellectual property;
- discontinue processes incorporating infringing technology; or
- obtain licenses to the infringing intellectual property.

We cannot assure you that we would be successful in any such development or acquisition or that any such licenses would be available upon reasonable terms, if at all. Any such development, acquisition or license could require the expenditure of substantial time and other resources and could have a material adverse effect on our business, results of operations and financial condition.

We have limited experience manufacturing propulsion and fuel systems for fuel cell and hybrid applications on a commercial basis.

To date, we have limited experience manufacturing propulsion and fuel systems for fuel cell, hybrid, PHEV and hydrogen applications on a commercial basis. In order to produce propulsion and fuel systems at affordable

prices, we will have to produce fuel and drive systems through high volume automated processes. We do not know whether we will be able to develop efficient, automated, low-cost manufacturing capability and processes that will enable us to meet the quality, price, engineering, design and production standards, or production volumes required to successfully mass market our fuel systems for fuel cell and hydrogen applications. Even if we are successful in developing our high volume manufacturing capability and processes, we do not know whether we will do so in time to meet our product commercialization schedules or to satisfy the requirements of customers. Our failure to develop such manufacturing processes and capabilities could have a material adverse effect on our business, results of operations and financial condition.

We may not meet our product development and commercialization milestones.

We have product development programs that are in the pre-commercial stage. The success of each product development program is highly dependent on our correct interpretation of commercial market requirements, and our translation of those requirements into applicable product specifications and appropriate development milestones. If we have misinterpreted market requirements, or if the requirements of the market change, we may develop a product that does not meet the cost and performance requirements for a successful commercial product. In addition, if we do not meet the required development milestones, our commercialization schedules could be delayed, which could result in potential purchasers of these products declining to purchase additional systems or choosing to purchase alternative technologies. Delayed commercialization schedules may also impact our cash flow, which could require increased funding.

Our business could suffer if we fail to attract and maintain key personnel.

Our future depends, in part, on our ability to attract and retain key personnel, including engineers, technicians, machinists and management personnel. For example, our research and development efforts depend on hiring and retaining qualified engineers. Competition for highly skilled engineers is extremely intense, and we may experience difficulty in identifying and hiring qualified engineers in many areas of our business. Our future also depends on the continued contributions of our executive officers and other key management and technical personnel, each of whom would be difficult to replace. We do not maintain a key person life insurance policy on our chairman of the board, our chief executive officer, or our chief financial officer. The loss of the services of one or more of our senior executive officers or key personnel, or the inability to continue to attract qualified personnel, could delay product development cycles or otherwise materially harm our business, results of operations and financial condition.

We may be subject to warranty claims, and our provision for warranty costs may not be sufficient.

We may be subject to increased warranty claims due to longer warranty periods. In response to consumer demand, vehicle manufacturers have been providing, and may continue to provide, increasingly longer warranty periods for their products. As a consequence, these manufacturers require their suppliers, such as us, to provide correspondingly longer product warranties. As a result, we could incur substantially greater warranty claims in the future.

Our business may be subject to product liability claims or product recalls, which could be expensive and could result in a diversion of management's attention.

The automotive industry experiences significant product liability claims. As a supplier of products and systems to automotive OEMs, we face an inherent business risk of exposure to product liability claims in the event that our products, or the equipment into which our products are incorporated, malfunction and result in personal injury or death. We may be named in product liability claims even if there is no evidence that our systems or components caused the accidents. Product liability claims could result in significant losses as a result of expenses incurred in defending claims or the award of damages. The sale of systems and components for the

transportation industry entails a high risk of these claims. In addition, we may be required to participate in recalls involving these systems if any of our systems prove to be defective, or we may voluntarily initiate a recall or make payments related to such claims as a result of various industry or business practices or the need to maintain good customer relationships. Our other products may also be subject to product liability claims or recalls. We cannot assure you that our product liability insurance will be sufficient to cover all product liability claims, that such claims will not exceed our insurance coverage limits or that such insurance will continue to be available on commercially reasonable terms, if at all. Any product liability claim brought against us could have a material adverse effect on our reputation and business.

Our insurance may not be sufficient.

We carry insurance that we consider adequate in regard to the nature of the covered risks and the costs of coverage. We are not fully insured against all possible risks, nor are all such risks insurable.

Our business may become subject to future product certification regulations, which may impair our ability to market our products.

We must obtain product certification from governmental agencies, such as the U.S. Environmental Protection Agency and the California Air Resources Board, to sell certain of our products in the United States and internationally. A significant portion of our future sales will depend upon sales of fuel management products that are certified to meet existing and future air quality and energy standards. We cannot assure you that our products will continue to meet these standards. The failure to comply with these certification requirements could result in the recall of our products or in civil or criminal penalties.

We anticipate that regulatory bodies will establish certification procedures and impose regulations on fuel cell enabling technologies, which may impair our ability to distribute, install and service these systems. Any new government regulation that affects our advanced fuel technologies, whether at the foreign, federal, state or local level, including any regulations relating to installation and servicing of these systems, may increase our costs and the price of our systems. As a result, these regulations may have a negative impact on our business, results of operations and financial condition.

Failure to comply with applicable environmental and other laws and regulations could adversely affect our business and harm our results of operations.

We use hazardous materials in our research and development and manufacturing processes, and as a result are subject to federal, state, local and foreign regulations governing the use, storage, handling and disposal of these materials and hazardous waste products that we generate. Although we believe that our procedures for using, handling, storing and disposing of hazardous materials comply with legally prescribed standards, we cannot completely eliminate the risk of contamination or injury resulting from hazardous materials and we may incur liability as a result of any such contamination or injury. In the event of an accident, including a discharge of hazardous materials into the environment, we could be held liable for damages or penalized with fines, and the liability could exceed our insurance and other resources. We have also incurred and may continue to incur expenses related to compliance with environmental laws. Such future expenses or liability could have a significant negative impact on our business, financial condition and results of operations. Further, we cannot assure you that the cost of complying with these laws and regulations will not materially increase in the future.

We are also subject to various other federal, state, local and foreign laws and regulations. Failure to comply with applicable laws and regulations, including new or revised safety or environmental standards, could give rise to significant liability and require us to incur substantial expenses and could materially harm our results of operations.

New technologies could render our existing products obsolete.

New developments in technology may negatively affect the development or sale of some or all of our products or make our products obsolete. A range of other technologies could compete with fuel cell, hydrogen, hybrid or other technologies on which our automotive business is currently focused. Our success depends upon our ability to design, develop and market new or modified fuel cell products and systems. Our inability to enhance existing products in a timely manner or to develop and introduce new products that incorporate new technologies, conform to increasingly stringent emission standards and performance requirements and achieve market acceptance in a timely manner could negatively impact our competitive position. New product development or modification is costly, involves significant research, development, time and expense and may not necessarily result in the successful commercialization of any new products.

Changes in environmental policies could hurt the market for our products.

The market for fuel cell and alternative fuel vehicles and equipment and the demand for our products are driven, to a significant degree, by local, state and federal regulations that relate to air quality, greenhouse gases and pollutants, and that require the purchase of motor vehicles and equipment operating on alternative fuels or fuel cells. Similarly, foreign governmental regulations also affect our international business. These laws and regulations may change, which could result in transportation or equipment manufacturers abandoning or delaying their interest in alternative fuel and fuel cell powered vehicles or equipment. In addition, a failure by authorities to enforce current domestic and foreign laws or to adopt additional environmental laws could limit the demand for our products.

Although many governments have identified as a significant priority the development of alternative energy sources, and fuel cells in particular, we cannot assure you that governments will not change their priorities or that any change they make would not materially affect our revenue or the development of our products.

The development of uniform codes and standards for hydrogen fuel cell vehicles and related hydrogen refueling infrastructure may not develop in a timely fashion.

Uniform codes and standards do not currently exist for fuel cell systems, fuel cell components or the use of hydrogen as a vehicle fuel. Establishment of appropriate codes and standards is a critical element to allow fuel cell system developers, fuel cell component developers and hydrogen storage and handling companies to develop products that will be accepted in the marketplace.

All fuels, including hydrogen, pose significant safety hazards, and hydrogen vehicles have not yet been widely used under "real-world" driving conditions. Ensuring that hydrogen fuel is safe to use by the car-driving public requires that appropriate codes and standards be established that will address certain characteristics of hydrogen and the safe handling of hydrogen fuels.

The development of fuel cell and hydrogen fuel applicable standards is being undertaken by numerous organizations, including the American National Standards Institute, the American Society of Mechanical Engineers, the European Integrated Hydrogen Project, the International Code Council, the International Standards Organization, the National Fire Protection Association, the National Hydrogen Association, the Society of Automotive Engineers, the Canadian Standards Association, the American National Standards Institute and the International Electrotechnical Commission. Given the number of organizations pursuing hydrogen and fuel cell codes and standards, it is not clear whether universally accepted codes and standards will result and, if so, when.

Although many organizations have identified as a significant priority the development of codes and standards, we cannot assure you that any resulting codes and standards would not materially affect our revenue or the commercialization of our products.

If we fail to maintain adequate internal controls we may not be able to produce reliable financial reports in a timely manner or prevent financial fraud.

We are required to document and test our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, which requires annual management assessments of the effectiveness of our internal controls over financial reporting. Our internal controls will include those of any company or business that we acquire in the future. Acquired companies or businesses are likely to have different standards, controls, contracts, procedures and policies, making it more difficult to implement and harmonize company-wide financial, accounting, information and other systems. During the course of our testing we may identify deficiencies that we may not be able to remediate in time to meet the deadlines imposed by the Sarbanes-Oxley Act of 2002. If we fail to maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002. Moreover, effective internal controls are necessary for us to produce reliable financial reports and are important in helping prevent financial fraud. If we cannot provide reliable financial reports on a timely basis or prevent financial fraud, our business and operating results could be harmed, investors could lose confidence in our reported financial information, and the trading price of our stock could be negatively affected.

Provisions of Delaware law and of our amended and restated certificate of incorporation and amended and restated bylaws may make a takeover or change in control more difficult.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws, and of Delaware corporate law, may make it difficult and expensive for a third party to pursue a tender offer, change in control or takeover attempt that our management and Board of Directors oppose. Public stockholders that might desire to participate in one of these transactions may not have an opportunity to do so. Our amended and restated certificate of incorporation and amended and restated bylaws provide for the following:

- a staggered Board of Directors, which makes it difficult for stockholders to change the composition of the Board of Directors in any one year;
- the exclusive right of the Board of Directors to change the number of directors and fill vacancies on the Board of Directors, which could make it more difficult for a third party to obtain control of the Board of Directors;
- authorizing the issuance of preferred stock which can be created and issued by the Board of Directors without prior stockholder approval, commonly referred to as “blank check” preferred stock, with rights senior to those of our common stock, which could make it more difficult or expensive for a third party to obtain voting control of us;
- advance notice requirements for director nominations or other proposals at stockholder meetings;
- prohibiting stockholder action by written consent, which could delay a third party from pursuing an acquisition; and
- requiring the affirmative vote of holders of at least two-thirds of our outstanding voting stock to amend certain provisions in our amended and restated certificate of incorporation and amended and restated bylaws, and requiring the affirmative vote of 80% of our outstanding voting stock to amend certain other provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which could make it more difficult for a third party to remove the provisions we have included to prevent or delay a change of control.

These anti-takeover provisions could substantially impede the ability of public stockholders to benefit from a change in control or to change our management and the Board of Directors.

Item 1B. Unresolved Staff Comments.

Not Applicable.

Item 2. Properties.

Our corporate headquarters are located in Irvine, California. Our facility in Irvine is primarily dedicated to the research and development and production of systems and technologies that enable the use of gaseous fuels in internal combustion engines and fuel cells. We conduct research and development of advanced fuel storage, systems for light- and medium-duty OEM alternative fuel vehicles and for fuel cell, hybrid propulsion systems and hydrogen refueling infrastructure applications at the Irvine facility. The facility in Irvine is leased from Cartwright, LLC (Cartwright). Cartwright is owned by our chief executive officer, chairman of the board and parties unrelated to us.

We conduct fuel cell, hydrogen and alternative fuel vehicle development and integration at our Advanced Vehicle Concept Center facility located in Lake Forest, California. This facility is focused on hydrogen systems integration, hybrid technologies, validation and certification for concept, prototype and production vehicles. The center additionally conducts research and development of advanced fuel delivery and electronic control systems for light- and medium-duty OEM alternative fuel vehicles and for fuel cell applications, including transportation.

As of June 10, 2008, we utilize manufacturing, research and development and general office facilities in the locations set forth below:

<u>Location</u>	<u>Approximate Square Footage</u>	<u>Owned or Leased</u>	<u>Lease Expiration Date</u>	<u>Principal Uses</u>
Irvine, California	88,000	Leased	8/31/08	Corporate offices, manufacturing, research and development, and testing
Lake Forest, California	94,000	Leased	5/31/15	Manufacturing, assembly, design, development, and testing

We believe our facilities are presently adequate for our current core product manufacturing operations and OEM development programs and production. We anticipate that we will require additional space as we expand our operations in the fuel cell, hybrid vehicle and solar industries. We believe that we will be able to obtain suitable space as needed on commercially reasonable terms.

We expect to relocate substantially all of our personnel and operating activities from our Irvine facility to expanded facilities at our Advanced Vehicle Concept Center located in Lake Forest, California, on or before August 31, 2008.

Item 3. Legal Proceedings.

We are not currently a party to any material legal proceeding. From time to time, we receive claims of and become subject to product liability, employment, intellectual property and other commercial litigation related to the conduct of our business. Such litigation, regardless of its merit or outcome, could be costly and time consuming and could divert our management and other key personnel from our business operations. The uncertainty of litigation increases the risks associated with it. In connection with such litigation, we may be subject to significant damages or equitable remedies relating to the operation of our business. Any such litigation may materially harm our business, results of operations and financial condition.

Item 4. Submission of Matters to a Vote of Security Holders.

No matters were submitted to a vote of security holders during the fourth quarter of fiscal year ended April 30, 2008.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock has been traded on the Nasdaq Global Market (f/k/a the Nasdaq National Market) under the symbol "QTWW" since July 23, 2002. Our Series B common stock is not publicly traded. The table below sets forth, for the periods indicated, the high and low daily sales prices for our common stock as reported on the Nasdaq Global Market:

	<u>High</u>	<u>Low</u>
Fiscal Year Ended April 30, 2007		
Quarter ended July 31, 2006	\$5.00	\$2.76
Quarter ended October 31, 2006	3.15	1.70
Quarter ended January 31, 2007	2.00	1.40
Quarter ended April 30, 2007	1.64	1.04
Fiscal Year Ended April 30, 2008		
Quarter ended July 31, 2007	\$2.30	\$1.17
Quarter ended October 31, 2007	1.49	1.01
Quarter ended January 31, 2008	1.30	0.37
Quarter ended April 30, 2008	1.48	0.55

On June 10, 2008, the last reported sale price for our common stock as reported by the Nasdaq Global Market was \$2.37 per share and there were approximately 534 holders of record of our common stock and one holder of record of our Series B common stock.

Dividend Policy

We have not paid any dividends in the past, and we do not anticipate paying any dividends on our common stock in the foreseeable future because we expect to retain our future earnings for use in the operation and expansion of our business. Our payment and amount of dividends, however, will be subject to the discretion of our board of directors and will depend, among other things, upon our results of operations, financial condition, cash requirements, future prospects, and other factors that may be considered relevant by our board of directors.

We did not repurchase any securities during the fourth quarter of fiscal 2008. Item 12 of Part III of this annual report on Form 10-K contains information concerning securities authorized for issuance under equity compensation plans.

Item 6. Selected Financial Data.

The following table summarizes certain historical financial information at the dates and for the periods indicated prepared in accordance with U.S. Generally Accepted Accounting Principles. The Consolidated Statement of Operations data for the years ended April 30, 2006, 2007 and 2008 and the Consolidated Balance Sheet data as of April 30, 2007 and 2008 have been derived from our audited consolidated financial statements included elsewhere in this annual report. The Consolidated Statement of Operations data for the year ended April 30, 2004 and 2005 and the Balance Sheet data as of April 30, 2004, 2005 and 2006 have been derived from audited financial statements not included in this annual report. Certain reclassifications have been made to amounts for fiscal years 2004 through 2007 to conform to the fiscal 2008 presentation. The selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes thereto, which are included elsewhere in this annual report.

	Year Ended April 30,				
	2004	2005	2006	2007	2008
	(in thousands, except per share amounts)				
Statement of Operations Data:					
Revenue:					
Net product sales	\$18,624	\$ 10,672	\$ 8,830	\$ 10,663	\$ 11,856
Contract revenue	9,495	12,310	10,952	7,016	14,641
Total revenue	<u>28,119</u>	<u>22,982</u>	<u>19,782</u>	<u>17,679</u>	<u>26,497</u>
Cost and expenses:					
Cost of product sales	12,865	9,744	9,308	9,484	10,016
Research and development	13,997	15,735	17,775	14,146	17,499
Selling, general and administrative	8,930	9,996	10,333	15,811	16,077
Amortization of intangibles	1,660	1,660	1,661	1,674	1,676
Operating loss	<u>(9,333)</u>	<u>(14,153)</u>	<u>(19,295)</u>	<u>(23,436)</u>	<u>(18,771)</u>
Interest income (expense), net	411	951	894	(16)	(2,218)
Minority interest in losses of subsidiary	—	—	56	811	1,719
Equity in earnings of affiliate	—	—	—	—	336
Other income (expense), net	27	80	1	6	(27)
Income tax provision	<u>(39)</u>	<u>(7)</u>	<u>(2)</u>	<u>(2)</u>	<u>(2)</u>
Loss from continuing operations	<u>(8,934)</u>	<u>(13,129)</u>	<u>(18,346)</u>	<u>(22,637)</u>	<u>(18,963)</u>
Income (loss) from discontinued operations(1)	<u>—</u>	<u>30</u>	<u>(17,187)</u>	<u>(117,893)</u>	<u>(66,062)</u>
Net loss	<u><u>\$ (8,934)</u></u>	<u><u>\$ (13,099)</u></u>	<u><u>\$ (35,533)</u></u>	<u><u>\$ (140,530)</u></u>	<u><u>\$ (85,025)</u></u>
Per share data—basic and diluted:					
Loss from continuing operations	\$ (0.33)	\$ (0.37)	\$ (0.35)	\$ (0.37)	\$ (0.25)
Income (loss) from discontinued operations	—	0.00	(0.32)	(1.91)	(0.86)
Net Loss	<u><u>\$ (0.33)</u></u>	<u><u>\$ (0.37)</u></u>	<u><u>\$ (0.67)</u></u>	<u><u>\$ (2.28)</u></u>	<u><u>\$ (1.11)</u></u>
Weighted average number of shares outstanding—basic and diluted(2)					
	27,257	35,048	53,284	61,760	76,791

(1) Consists of the operations of Tecstar Automotive Group, Inc. since the acquisition date of March 3, 2005.

All of the historical activities of the Tecstar Automotive Group business segment have been classified as discontinued operations in connection with the disposal of the businesses on January 16, 2008.

(2) See Note 14 of the notes to the consolidated financial statements included elsewhere in this annual report for an explanation of the method used to determine the number of shares used to compute the net loss per share.

	April 30,				
	2004	2005	2006	2007	2008
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 15,729	\$ 9,134	\$ 4,769	\$ 2,526	\$ 6,024
Marketable securities held-to-maturity	52,828	36,103	15,000	—	—
Working capital	57,689	58,369	26,435	17,337	930
Total assets	103,447	283,752	282,309	167,543	68,786
Long-term obligations, less current portion	—	—	—	50,788	33,624
Total equity	97,451	219,208	191,593	77,530	13,350

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following Management's Discussion and Analysis of Financial Condition and Results of Operations together with the consolidated financial statements and related notes included elsewhere in this annual report. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those described under "Risk Factors" and elsewhere in this annual report.

Overview

We are a fully integrated alternative energy company and a leader in the development and production of advanced propulsion systems, energy storage technologies, and alternative fuel vehicles. We believe that we are uniquely positioned to integrate advanced fuel system, electric drive and battery control system technologies for fuel cell and hybrid vehicles based on our years of experience in vehicle-level design, vehicle electronics and system integration.

Our portfolio of technologies includes electronic controls, hybrid electric drive systems, hydrogen storage and metering systems, and alternative fuel technologies that enable fuel efficient, low emission hybrid, plug-in electric hybrid, fuel cell and alternative fuel vehicles. We provide powertrain engineering, system integration, manufacturing and assembly of packaged fuel systems and battery control systems for vehicles and other applications including fuel cells, hybrids, plug-in electric hybrid, alternative fuels, and hydrogen refueling. We also design, engineer and manufacture hybrid and fuel cell vehicles.

Our powertrain engineering, system integration, and assembly capabilities provide fast-to-market solutions to support the production of hybrid and plug-in hybrid, hydrogen-powered hybrid, fuel cell, and alternative fuel vehicles, as well as modular, transportable hydrogen refueling stations. Our customer base includes automotive Original Equipment Manufacturers (OEMs), military and governmental agencies, aerospace, and other strategic alliance partners.

We classify our business operations into two reporting segments: Quantum Fuel Systems and Corporate. The Corporate segment consists of general and administrative expenses incurred at the corporate level that are not directly attributable to the Quantum Fuel Systems segment. In prior years we had a third business segment—Tecstar Automotive Group business segment. As discussed more fully below under Recent Developments, the Tecstar Automotive Group business segment ceased operations on January 16, 2008, when we transferred substantially all of that segment's business operations to an affiliate of our lender. As a result of such transfer, the historical activities of the Tecstar Automotive Group business segment are now classified as discontinued operations. In addition, certain historical indirect expenses of the Corporate segment have been reclassified and are reported as discontinued operations.

The Quantum Fuel Systems business operations primarily consist of design, manufacture and supply of packaged fuel and electric drive and battery system technologies for use in fuel cell, hybrid, plug-in electric hybrid, hydrogen and other alternative fuel vehicles. This segment generates product revenues through the sale of hydrogen fuel storage, fuel delivery, and electronic control systems to OEMs, the installation of its systems into OEM vehicles, and the sale of transportable hydrogen refueling stations. Product revenues are also generated through the sale of compressed natural gas (CNG), propane (LPG), and hydrogen fuel storage, fuel delivery, and electronic control systems for internal combustion engine applications. In addition to product sales, the Quantum Fuel Systems segment generates contract revenue by providing engineering design and support to the OEMs so that its advanced propulsion systems integrate and operate with their fuel cell or hybrid applications. Contract revenue is also generated from customers in the aerospace industry, military and other government entities, and other strategic alliance partners.

Prior to its disposal, the Tecstar Automotive Group segment was comprised of virtually all of the business activities acquired via the merger with Tecstar Automotive Group in March 2005, and subsequent specialty

vehicle business acquisitions. The Tecstar Automotive Group primarily consisted of second stage manufacturing of specialty equipment for General Motors' pick-up trucks and SUVs, engineering and design capabilities for concept vehicles, and distribution of conversion vehicles and automotive accessories through OEM dealer networks.

The chief operating decision maker allocates resources and tracks performance by the reporting segments, and evaluates performance based on profit or loss from operations before interest and income taxes.

Recent Developments

Disposal of Tecstar Business Segment

On January 11, 2008, Tecstar Automotive Group was in default of the January 1, 2008 semi-annual interest payment due to affiliates of our secured lender under terms of certain convertible note obligations (Tecstar Convertible Notes). As a result of the default, all the amounts due under the Tecstar Convertible Notes were immediately due and payable. On January 16, 2008, we completed a series of transactions with our secured lender that restructured our outstanding debt obligations and resulted in our transfer of substantially all of the assets of our Tecstar Automotive Group business segment to an affiliate of our secured lender, WB Automotive, Inc. (WB Automotive), as payment in full of the obligations due under the Tecstar Convertible Notes.

The transfer of the Tecstar business segment was structured as a strict foreclosure under Article 9 of the Uniform Commercial Code pursuant to which Tecstar Automotive Group and WB Automotive executed a Strict Foreclosure Agreement, pursuant to which, under Article 9 of the Uniform Commercial Code, Tecstar Automotive Group assigned to WB Automotive all of its right, title and interest in and to the equity interests in Tecstar's operating subsidiaries (the "Operating Subsidiaries"), Tecstar's interest in the Amstar joint venture, receivables owed to Tecstar by the Operating Subsidiaries and Tecstar's interest in a \$1.0 million cash collateral account, in full payment and satisfaction of the amounts owed by Tecstar under the Tecstar Convertible Notes. WB Automotive also released Quantum from its guaranty of the Tecstar Convertible Notes and a \$5.0 million term note provided to Tecstar Automotive Group by the Company's secured lender on November 6, 2007 (Tecstar Term Note). In exchange for the foregoing release, Quantum (i) caused Tecstar Automotive Group to enter into and complete the transactions described above, (ii) paid \$1.0 million to WB Automotive and (iii) agreed to assume \$0.7 million in unpaid interest owed under the Tecstar Convertible Notes. Our lender subsequently cancelled the Tecstar Term Note in a separate agreement.

As a result of the transactions described above that resulted in the disposal of the Tecstar businesses, the historical activities and balances of the Tecstar Automotive Group Business segment are reported as discontinued operations in the accompanying consolidated balance sheets, consolidated statements of operations and consolidated statements of cash flows for all periods presented in accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets."

The disposal of the Tecstar businesses resulted in a gain of \$8.6 million included in discontinued operations, net of taxes, for the year ended April 30, 2008 that resulted in part from concessions granted by our lender in restructuring the debt obligations. Prior to the restructuring, we had recorded significant losses for the Tecstar Automotive Group business segment attributable to the write-down of its long-lived assets and negative operating results reported in previous quarters.

Investment in Fisker Automotive

On August 7, 2007, our strategic partner, Fisker Coachbuild, LLC, and Quantum launched a new venture, Fisker Automotive, Inc. (Fisker Automotive), to produce premium plug-in hybrid automobiles. Initial deliveries of a four-door luxury sports sedan are anticipated to commence in the fourth quarter of calendar 2009. Upon formation, we owned 62% of Fisker Automotive. Through April 30, 2008, Fisker Automotive has raised a level of capital that has resulted in the dilution of our ownership interest down to 30.7%. We have two of Fisker

Automotive's six seats on the Board of Directors. Fisker Automotive will need to raise additional capital in order to complete future phases of development, testing, and tooling for the new vehicle platform, which will further reduce our ownership percentage in Fisker Automotive.

We account for our equity interest in Fisker Automotive under the equity method of accounting in accordance with APB Opinion No. 18, "The Equity Method of Accounting for Investments in Common Stock," (APB 18). Due to the temporary nature of our majority interest in Fisker Automotive, we also accounted for our initial equity interest in Fisker Automotive under the equity method. Although Fisker Automotive is a variable interest entity as defined by Financial Accounting Standards Board (FASB) Interpretation No. 46 (revised December 2003), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51" (FIN 46R), we are not the primary beneficiary as defined by FIN 46R.

Fisker Automotive has incurred accumulated deficits from inception through April 30, 2008 for design and development activities for the new vehicle platform. We have not contributed any cash or other assets with a historical cost basis to the venture and we have no obligation to fund deficit balances. As a result, our initial investment balance and balance as of April 30, 2008 is zero and there is no activity to be reported in our consolidated statement of operations for the year ended April 30, 2008.

We received \$6.5 million in cash from Fisker Automotive during fiscal 2008 and recognized \$2.2 million in contract revenue during this period. The cash received in excess of the revenue earned of \$4.3 million is included as part of deferred revenue on the accompanying consolidated balance sheet as of April 30, 2008.

Investment in Asola

On January 4, 2008, we acquired a 24.9% ownership interest in Asola Advanced and Automotive Solar Systems GmbH (Asola), a solar module manufacturer located in Erfurt, Germany. In exchange for the ownership interest, we (i) provided 0.3 million euro (US\$0.4 million), (ii) committed to contribute an additional 1.2 million euro (US\$1.9 million was contributed on May 8, 2008) to provide for capital equipment for the planned expansion of Asola's annual manufacturing capacity to approximately 40 to 45 mega watts peak (MWp), (iii) committed to provide a guaranty to Asola's bank of 1.0 million euro related to an anticipated expansion of Asola's bank financing arrangement, and (iv) committed to transfer 15.0% ownership interest in our solar venture in the United States, if and when such venture is established. The conversion rate of one euro to one U.S. dollar was 1.56 to 1 as of April 30, 2008. We account for our equity interest in Asola under the equity method of accounting in accordance with APB 18. Although Asola is a variable interest entity, we are not considered the primary beneficiary as defined by FIN 46R.

Asola has reported total assets of 11.3 million euro; total liabilities of 9.5 million euros, including debt obligations of 1.4 million euros, as of December 31, 2007 (unaudited); revenues of 24.9 million euro and net profits of 0.7 million euro for calendar year 2007 (unaudited); and revenues of 13.3 million euro and net profits of 0.9 million euro for the period January 1, 2008 to April 30, 2008 (unaudited). Our equity in earnings of Asola was US\$0.3 million from the date of the equity investment through April 30, 2008.

On November 7, 2007 we entered into an agreement with Asola under which we agreed to purchase one-half of Asola's rights and obligations under a certain long-term solar cell supply agreement to which Asola is a party. Asola's obligations under the long-term solar cell supply agreement, dated November 1, 2007, includes the required purchase by Asola of solar cells with a cumulative power of 155 mega watts peak (MWp) for the period from January 1, 2008 through December 31, 2017 at predetermined fixed prices, with prepayments required by November 1, 2007 of 1.0 million euro, by September 1, 2008 of 3.0 million euro, and by September 1, 2009 of 5.0 million euro.

Our agreement to purchase one-half of Asola's rights and obligations under Asola's long-term solar cell supply agreement provides us with the rights to purchase 77.5 MWp. In consideration for Asola's sale of one-half

of its contract rights to us, we paid Asola 1.0 million euro (US\$1.4 million) on October 29, 2007 and agreed that we are responsible for up to 1.5 million euro of the prepayment due in 2008 and responsible for up to 2.5 million euro of the prepayment due in 2009. Our payment to Asola in October 2007 in connection with the solar cell arrangement is included in deposits and other assets on the accompanying consolidated balance sheet as of April 30, 2008. We anticipate that Asola will generate cash flows sufficient to cover a portion of the prepayments; however, if there is insufficient cash available within Asola operations, we will endeavor to raise funds specifically for Asola to cover the shortfall. We had not purchased any solar cells from Asola under the arrangement through April 30, 2008.

We believe these agreements secure a ten-year supply of silicon photovoltaic solar cells that we and Asola anticipate to utilize for the manufacture of solar modules for commercial, residential, and automotive applications in both Europe and the United States.

Quantum Fuel Systems Segment

Our Quantum Fuel Systems segment supplies our advanced gaseous fuel systems for alternative fuel vehicles to OEM customers for use by consumers and for commercial and government fleets. Since 1997, we have sold approximately 20,000 fuel systems for alternative fuel vehicles, primarily to General Motors, which in turn have sold substantially all of these vehicles to its customers. We also provide our propulsion systems and hydrogen storage products for hybrid and fuel cell applications to major OEMs through funded research and development contracts and on a prototype and production intent basis. These systems and hydrogen products are not currently manufactured in high volumes and will require additional product development; however, we believe that a commercial market will begin to develop for our hybrid propulsion system, Q-Drive, within the next two years. We expect a commercial market to develop for our hydrogen and fuel cell vehicle products further in the future. We believe that these systems will reach production volumes only if OEMs produce fuel cell applications and hydrogen products using our systems on a commercial basis.

A number of domestic and international automotive and industrial manufacturers are developing alternative clean power systems using fuel cells, hybrid systems or clean burning gaseous fuels in order to decrease fuel costs, lessen dependence on crude oil and reduce harmful emissions. Our products for these markets consist primarily of fuel storage, fuel delivery, electronic vehicle control systems and battery control systems, as well as system integration of our products into fuel cell, hybrid, and alternative fuel vehicles, and hydrogen refueling products, which includes the complete design of fuel cell and hybrid vehicles to demonstrate our advanced fuel systems expertise.

In May 2007, we were awarded a \$4.9 million contract to develop a diesel hybrid electric version of our Alternative Mobility Vehicle (AMV) "Aggressor." This program is a follow on to our successful "Aggressor" vehicle, a high performance light-duty off-road fuel cell hybrid vehicle developed for TARDEC. The objective of this program is to develop a second generation high performance light-duty off-road hybrid electric vehicle platform based on the results of and feedback from the U.S. Army's testing and evaluation of the Aggressor. The propulsion system for this next phase of AMV development will focus on a JP-8 fuel-compatible diesel internal combustion engine based, battery dominant, series hybrid electric system, which would provide a cost-effective, near-term solution as fuel cell technology matures. The target mission profile is long range reconnaissance. Pre-production prototypes will be developed and built for testing and evaluation by selected commands to assess mission suitability, supportability, performance objectives, and guidance on final vehicle configuration.

In July 2007, we were awarded a contract to supply ten hydrogen hybrid Priuses to VistOrka for use in Iceland's SMART-H₂ project. The SMART-H₂ will be one of the largest hydrogen demonstrations in the world.

In September 2007, we received a letter from General Motors nominating us as their hydrogen storage vessel supplier for their next generation of hydrogen storage systems under their fuel cell vehicle program. On November 21, 2007 we received initial purchase orders totaling \$4.2 million for the program.

In October 2007, we received an order for six hydrogen hybrid vehicles for the U.S. Army's Tank Automotive Research, Development and Engineering Center.

In November 2007, we began providing services to our affiliate, Fisker Automotive, on an initial concept analysis program associated with powertrain and software control systems for a production intent hybrid-electric vehicle under a \$1.0 million arrangement. In January 2008, Fisker Automotive previewed their new plug-in hybrid four-door sport sedan, known as the "Fisker Karma," at the North American International Auto Show. The Fisker Karma is being engineered to achieve 50 miles of zero emission, battery-only range while providing combined gasoline-electric hybrid operation to enable uncompromised vehicle range and performance. The services under the first contract were completed in January 2008. On February 14, 2008, we were awarded a second contract for \$13.5 million for the second phase of the development. Under the second phase, we will develop the powertrain and software control systems and integrate our PHEV architecture that we call "Q-Drive" for the Fisker Karma production model that is expected to have initial deliveries beginning in the fourth quarter of calendar 2009.

In March 2008, we announced we were selected by the U.S. Department of Energy for final negotiations for a contract to develop next-generation manufacturing technologies for hydrogen storage vessels. The total value of this project, which will be done in partnership with The Boeing Company, is \$5.6 million over a three year period.

Our Quantum Fuel Systems segment revenues and cash flows in the future will be dependent on the success of the Fisker Karma, further advancement of OEM fuel cell technologies and our OEM customers' internal plans, spending levels and timing for pre-production development programs and commercial production. This segment depends on the industry-wide growth of the hybrid hydrogen, plug-in electric hybrid, fuel cell, and other alternative fuel markets, which in turn is dependent on regulations, laws, hydrogen availability and refueling, technology advancements, and consumer adoption of alternative fuel and hydrogen technologies on a commercial scale.

Our fuel storage systems must be able to withstand rigorous testing as individual components and as part of the fuel system of the vehicles. The fuel system as a whole, including the tank, regulator and fuel lines, need to comply with OEM vehicle requirements and applicable safety standards. Our systems are generally designed, validated and certified for short-term life, approximately three years, and are produced in accordance with requirements specified by our OEM customers. We currently have programs with OEMs to design, validate and certify systems for longer durability and for vehicles designed for commercialization.

Our Quantum Fuel Systems business is generally related to hybrid, fuel cell and alternative fuel vehicle development programs and product sales, which vary directly with the program timing and production schedules of our OEM and other customers. The market for these vehicles is sensitive to general economic conditions, government agency and commercial fleet spending and consumer preferences. The rate at which our customers sell hybrid, fuel cell or alternative fuel vehicles depends on their marketing and distribution strategy, as well as company specific inventory and incentive programs. Any significant reduction or increase in production of these vehicles by our OEM customers may have a material effect on our business. Our CNG program with General Motors was completed in November 2006. We anticipate that future programs for CNG applications will be in international markets, specifically Europe, China and India. In April, 2007, we signed a memorandum of understanding to establish a cooperative joint venture with a major automaker in China for the development and commercialization of hybrid and alternative fuel vehicles, manufacture of gaseous fuel components, and integration of advanced propulsion systems. We also signed a memorandum of understanding in May 2007 for the marketing, sales, and distribution in India of its leading alternative fuel vehicle products and systems for compressed natural gas (CNG), blends of natural gas and hydrogen, and liquid petroleum gas (LPG). We are currently in discussions with other parties to modify existing components and systems to meet specific vehicle applications for those markets.

Our industry is also dependent upon a limited number of third party suppliers of materials and components for our products. Any quality problems or supply shortages with respect to these components could negatively impact our business.

Tecstar Automotive Group Segment

On January 16, 2008 we transferred substantially all the assets of the Tecstar Automotive Group, Inc. to an affiliate of our secured lender pursuant to a strict foreclosure under Article 9 of the Uniform Commercial Code. As a result of the transfer, the Tecstar Automotive Group business segment (formerly consisting of all of the Tecstar businesses and operating units) ceased operations for purposes of our financial reporting. The Tecstar Automotive Group segment, prior to its disposal, engineered and integrated specialty equipment products into motor vehicle applications, primarily General Motors' pick-up trucks and sport utility vehicles, provided vehicle build capabilities associated with military vehicle projects and provided design and powertrain services for high performance cars.

As a result of the disposal of the Tecstar businesses, all historical activities of the Tecstar Automotive Group business segment have been classified as discontinued operations in the accompanying consolidated statements of operations and consolidated statements of cash flows.

Financial Operations Overview

In managing our business, our management uses several financial and non-financial factors to analyze our performance. Financial factors include forecast to actual comparisons, analysis of revenue and cost trends, backlog of customer programs, and changes in levels of working capital. Non-financial factors include assessing the extent to which current programs are progressing in terms of timing and deliverables and the success to which our systems are interfacing with our customers' vehicle applications. We also assess the degree to which we secure additional programs or new programs from our current or new OEM customers and the level of government funding we receive for propulsion systems and storage solutions. We also evaluate the number of units shipped as part of current and new programs and evaluate the operations of our affiliates, Fisker Automotive, Asola and ALP.

For the fiscal years ended April 2006, 2007 and 2008, revenue related to sales of our products to and contracts with General Motors and its affiliates represented 71%, 70% and 64%, respectively, of our total consolidated revenue from continuing operations for these periods.

We recognize revenue for product sales upon shipment or when goods and systems are assembled on the vehicles and prepared and deliverable to our customers in accordance with our contract terms and collectibility is reasonably assured. Contract revenue is principally recognized based on the percentage of completion method. Revenues on certain other contracts are recognized on a time and materials basis as costs are incurred.

We expense all research and development when incurred. Research and development expense includes both customer-funded research and development and company-sponsored research and development. Customer-funded research and development consists primarily of expenses associated with contract revenue. These expenses include application development costs we funded under customer contracts. We will continue to require significant research and development expenditures over the next several years in order to commercialize our products for hybrid, hydrogen fuel cell and alternative fuel applications.

General Motors Relationship

In 2002, we entered into a ten-year strategic alliance with General Motors. We believe that our strategic alliance with General Motors will advance and commercialize, on a global basis, the integration of our gaseous storage and handling systems into fuel cell systems used in the transportation markets. Under the alliance, Quantum and General Motors have co-developed technologies that are designed to accelerate the

commercialization of fuel cell applications. Additionally, General Motors will endorse Quantum as a recommended provider of hydrogen storage, hydrogen handling and associated electronic controls. This strategic alliance expands the relationship that has been in place between General Motors and Quantum since 1993, through which we provided packaged natural gas and propane fuel systems for General Motors' alternative fuel vehicle products.

Pursuant to the terms of our Amended and Restated Certificate of Incorporation, upon the completion of our January 2003 public offering, all of the outstanding 3,513,439 shares of Series A common stock held by General Motors converted on a one-for-one basis into Quantum common stock. We also issued an additional 999,969 shares of our non-voting Series B common stock to General Motors pursuant to General Motors' anti-dilution rights. As a result of the conversion of the Series A common stock, General Motors no longer has anti-dilution rights. We recorded the value of the shares issued to General Motors as an intangible asset at fair market value on the date of their respective issuance. We are amortizing this intangible asset over the ten-year term of the strategic alliance with General Motors, subject to periodic evaluation for impairment.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles and are included elsewhere in this report. The preparation of these consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates, including those related to bad debts, inventories, goodwill and intangible asset impairment valuations, warranty and recall obligations, debt obligations, long-term service contracts, and contingencies and litigation, on an ongoing basis. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Management considers an accounting estimate to be critical if:

- it requires assumptions to be made that were uncertain at the time the estimate was made; and
- changes in the estimate or different estimates that could have been selected could have a material impact on our results of operations or financial condition.

Our management has discussed the development and selection of these critical accounting policies and estimates with the audit committee of our board of directors, and the audit committee has reviewed the disclosure presented below relating to them. We believe the critical accounting policies described below affect the more significant judgments and estimates used in the preparation of our consolidated financial statements:

- We generally manufacture products based on specific orders from customers. Revenue is recognized on product sales upon shipment or when the earnings process is complete and collectibility is reasonably assured. For product sales in connection with second stage manufacturing, consisting of assembly and integration of specialty equipment products into motor vehicle applications, revenue is recognized upon completion of the integration activities when the vehicles are ready to be delivered to our customers in accordance with contract terms. The Company includes the costs of shipping and handling, when incurred, in cost of goods sold. We generally recognize revenue and profit as work progresses on long-term, fixed price contracts for product application development using the percentage-of-completion method. Generally, we estimate percentage complete by determining cost incurred to date as a percentage of total estimated cost at completion. For certain other contracts, percentage complete is determined by measuring progress towards contract deliverables if it is determined that this methodology more closely tracks the realization of the earnings process. For contracts measured under the estimated cost approach, we believe we can generally make dependable

estimates of the revenue and costs applicable to various stages of a contract. Recognized revenue and profit are subject to revisions as the contract progresses to completion. Our estimates of contract costs are based on expectations of engineering development time and materials and other support costs. These estimates can change based on unforeseen technology and integration issues, but known risk factors and contract challenges are generally allowed for in the initial scope and cost estimate of the program. Our historical final contract costs have usually approximated the initial estimates and any unforeseen changes in the estimates have not normally resulted in a material impact to financial results. Revisions in profit estimates are charged to income in the period in which the facts that give rise to the revision become known. In certain circumstances, specific contracts in which we cannot reliably make estimates of total revenues and expenses are accounted for under the completed contract method. Under the completed contract method, all revenue and expenses attributable to the specific contract are deferred until the end of the project.

- We conduct a major portion of our business with a limited number of customers. For the past fiscal year and for the foreseeable future, General Motors has represented, and is expected to continue to represent, a significant portion of our sales and outstanding accounts receivable. An affiliate, Fisker Automotive, is also expected to represent a significant portion of our sales and outstanding receivables for the foreseeable future. Credit is extended based upon an evaluation of each customer's financial condition, with terms consistent with those present throughout the industry. Typically, we do not require collateral from customers. We have recorded an allowance for uncollectible accounts receivable based on past experience and certain circumstances surrounding the composition of total accounts receivable. To the extent we increase this allowance in a period, we must include an expense in the statement of operations. If commercial conditions differ from management's estimates, an additional write-off may be required.
- We provide for the estimated cost of product warranties at the time revenue is recognized based on past experience and expectations of future costs to be incurred. Our Quantum Fuel Systems segment provides product warranties in certain circumstances depending on the platform and model year. For prototype components and systems that are not production intent, warranties are generally not provided. While we engage in product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers, our warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required.
- We write down our inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. As part of our estimate, we rely upon future planned design configurations and projected alternative usage of certain components estimated by engineering. We also consider estimated demand for service and warranty parts based on historical information. If actual usage rates or market conditions are less favorable than those projected by management, additional inventory write-downs may be required.
- We record our acquisitions in accordance with Statement of Financial Accounting Standards ("SFAS") No. 141, "Business Combinations." In determining the fair value of the assets acquired and liabilities assumed in connection with our acquisitions, we consider the evaluations of independent valuation consultants and other estimates.
- We periodically evaluate for impairment our long-lived assets, particularly goodwill and intangible assets relating to acquisitions and the intangible asset relating to the strategic alliance with General Motors. Our identifiable finite-lived intangible assets are amortized over their estimated useful lives. Goodwill is not amortized, but is evaluated periodically for any impairment in the carrying value. We review our long-lived assets, which include property and equipment, goodwill and identifiable finite-lived intangible assets, for impairment on an annual basis or whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. Factors we consider important which could trigger an impairment review include, but are not limited to, the

following: significant underperformance relative to expected historical or projected future operating results; significant changes in the manner of our use of the acquired assets or the strategy for our overall business; significant negative industry or economic trends; and a significant decline in our stock price for a sustained period. Goodwill and long-lived asset impairment assessments are generally determined based on fair value techniques, including determining the estimated future discounted and undiscounted cash flows over the remaining useful life of the asset. Those models require estimates of future revenue, profits, capital expenditures and working capital for each reporting unit. We estimate these amounts by evaluating historical trends, current budgets, operating plans, and industry averages. Discounted cash flows are calculated using a discount rate determined by management to be commensurate with the risk inherent in the current business model. Determining the fair value of reporting units and goodwill includes significant judgment by management and different judgments could yield different results. Any resulting impairment loss could have a material adverse impact on our financial condition and results of operations.

- We evaluate whether modifications to and restructuring of existing debt instruments result in substantial changes as defined by EITF 96-19, "Debtor's Accounting for a Modification or Exchange of Debt Instruments" and/or in troubled debt restructurings as defined by FAS No. 15, "Accounting by Debtors and Creditors for Troubled Debt Restructurings." Significant management judgment is required and we use the assistance of independent valuation consultants to assist in these determinations and to estimate the fair value of the original and amended debt instruments as part of our evaluation. Different judgments could yield different results. If we determine that a substantial change has occurred with respect to the modifications, we treat the transaction as an extinguishment of the original debt and recognize a gain or loss on the debt retirement. If we determine that our lender has for economic or legal reasons related to our financial condition, granted us a concession that our lender would not otherwise consider, we treat the modifications as a troubled debt restructuring and record a gain equal to the estimated concession granted.
- We account for stock compensation expense under SFAS No. 123R, "Share-Based Payment." SFAS No. 123R requires all share-based payments, including grants of stock options and restricted stock, to be recognized in our financial statements based on their respective grant date fair values. Under this standard, the fair value of each employee stock option is estimated on the date of grant using an option-pricing model that meets certain requirements. We currently use the Black-Scholes option-pricing model to estimate the fair value of our share-based payments. The Black-Scholes model meets the requirements of SFAS No. 123R but the fair values generated by the model may not be indicative of the actual fair values of our stock-based awards as it does not consider certain factors important to stock-based awards, such as continued employment, periodic vesting requirements and limited transferability. The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. We estimate the expected volatility and estimated life of our stock options at grant date based on historical data trended into the future. The risk-free interest rate assumption is the Constant Maturity Treasury rate on government securities with a remaining term equal to the expected term of the option. The dividend yield assumption is based on our history and expectation of dividend payouts. The fair value of our restricted stock is based on the fair market value of our common stock on the date of grant. Stock-based compensation expense recognized in our financial statements is based on awards that are ultimately expected to vest. The amount of stock-based compensation expense is reduced for estimated forfeitures based on historical experience. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We evaluate the assumptions used to value stock-based awards on a quarterly basis. If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense. To the extent that we grant additional equity securities to employees or we

assume unvested securities in connection with any acquisitions, our stock-based compensation expense will be increased by the additional unearned compensation resulting from those additional grants or acquisitions.

- As part of the process of preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves the estimation of our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. Included in this assessment is the determination of the net operating loss carry-forward that has resulted from our cumulative net operating loss since our spin-off from IMPCO. These differences result in an overall net deferred tax asset position before any valuation allowances are considered. We must assess the likelihood that our deferred tax assets will be recovered from future taxable income and to the extent that we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or change this allowance in a period, we generally include an expense or benefit within the tax provision in the consolidated statement of operations. Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our deferred tax assets. We have recorded a valuation allowance on our deferred tax assets due to uncertainties related to our ability to fully utilize these assets, primarily consisting of net operating losses and credits that may be carried forward before they expire, and that are subject to certain limitations. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations. As of April 30, 2008, our net deferred tax assets have been offset in full by a valuation allowance.

Recent Accounting Pronouncements

In June 2006, the FASB issued FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109," ("FIN 48"). FIN 48 clarifies the accounting for uncertainties in income taxes recognized in an enterprise's financial statements. The Interpretation requires that we determine whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authority. If a tax position meets the more likely than not recognition criteria, FIN 48 requires the tax position be measured at the largest amount of benefit greater than 50 percent likely of being realized upon ultimate settlement. This accounting standard is effective for fiscal years beginning after December 15, 2006. As such, we adopted the provisions as of the beginning of our 2008 fiscal year effective May 1, 2007. There was no cumulative effect to the retained earnings balance and we do not have any unrecognized tax benefits at May 1, 2007 and April 30, 2008.

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" ("FAS 157"). FAS 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. This statement is effective for us at the beginning of our 2009 fiscal year. We are currently evaluating the impact of the provisions of FAS 157.

In February 2007, the FASB issued SFAS No. 159, "The Fair Option for Financial Assets and Financial Liabilities—including an amendment of FASB Statement No. 115," ("FAS 159"), which allows measurement at fair value of eligible financial assets and liabilities that are not otherwise measured at fair value. If the fair value option for an eligible item is elected, unrealized gains and losses for that item shall be reported in current earnings at each subsequent reporting date. SFAS No. 159 also establishes presentation and disclosure requirements designed to draw comparison between the different measurement attributes the company elects for similar types of assets and liabilities. This statement is effective for us at the beginning of our 2009 fiscal year. We are currently evaluating the impact of the provisions of FAS 159.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51" ("FAS 160"). FAS 160 will change the accounting and reporting for

minority interests, which will be recharacterized as noncontrolling interests and classified as a component of equity. This new consolidation method will significantly change the accounting for transactions with minority interest holders. This statement is effective for us at the beginning of our 2010 fiscal year. We are currently evaluating the impact of the provisions of FAS 160.

In March 2008, the FASB issued SFAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities—an Amendment of SFAS No. 133" ("FAS 161"). FAS 161 modifies existing requirements to include qualitative disclosures regarding the objectives and strategies for using derivatives, fair value amounts of gains and losses on derivative instruments and disclosures about credit-risk-related contingent features in derivative agreements. In addition, FAS 161 requires the cross-referencing of derivative disclosures within the financial statements and notes thereto. This statement is effective for us at the beginning of the fourth quarter of our 2009 fiscal year. We are currently evaluating the impact of the provisions of FAS 161.

Results of Operations

Years Ended April 30, 2007 and 2008

Net revenue and operating loss for our continuing operations by business segment for the years ended April 30, 2007 and 2008 were as follows:

	Revenue		Operating Loss	
	Year Ended April 30		Year Ended April 30	
	2007	2008	2007	2008
	(in thousands)			
Quantum Fuel Systems	\$17,679	\$26,497	\$(12,444)	\$ (7,340)
Corporate(1)	—	—	(10,992)	(11,431)
Total	<u>\$17,679</u>	<u>\$26,497</u>	<u>\$(23,436)</u>	<u>\$(18,771)</u>

(1) Represents corporate expenses not directly specific to supporting the Quantum Fuel Systems reporting segment.

Overall revenue increased \$8.8 million mainly as a result of increased contract revenues related to new programs with Fisker Automotive, continuing engineering development services related to hydrogen fuel storage programs and expanded military programs together with product shipments associated with General Motors' Equinox fuel cell vehicle. Overall operating loss decreased \$4.7 million, mainly as a result of the increased revenues and higher margins realized on programs in fiscal 2008. We expect overall revenues to increase in fiscal 2009 and for the positive trend in narrowing operating losses to continue in fiscal 2009 compared to fiscal 2008.

Quantum Fuel Systems Segment

Product sales for the Quantum Fuel Systems segment increased \$1.2 million, or 11%, from \$10.7 million in fiscal 2007 to \$11.9 million in fiscal 2008. The increase in fiscal 2008 is mainly due to shipments of hydrogen fuel storage systems associated with General Motors' Equinox fuel cell vehicle program which replaced and exceeded the lost sales associated with General Motors' program for pick-up trucks equipped with our bi-fuel and compressed natural gas fuel systems that ended in November 2006. Product sales during fiscal 2008 also included sales of hydrogen-fueled Toyota Prius hybrid vehicles. During the fourth quarter of fiscal 2008, we completed and shipped all units ordered under General Motors' current generation of hydrogen fuel storage systems associated with the Equinox platform.

We expect product sales in fiscal 2009 to decline from levels achieved in fiscal 2008 as we shift our internal resources to focus on contract development services for next generation vehicle programs for General Motors and the Fisker Karma program.

Cost of product sales for the Quantum Fuel Systems segment increased \$0.5 million, or 5%, from \$9.5 million in fiscal 2007 to \$10.0 million in fiscal 2008. The increase is mainly due to shipments of hydrogen fuel storage systems for General Motors Equinox fuel cell vehicle program during fiscal 2008 that offset the completion of compressed natural gas fuels system programs that ended in November 2006. Gross profits on product sales for the Quantum Fuel Systems segment increased \$0.7 million, or 58%, from \$1.2 million in fiscal 2007 to \$1.9 million in fiscal 2008. The increase in fiscal 2008 is mainly attributable to higher margins associated with hydrogen fuel storage systems shipped in fiscal 2008 compared to margins on less technologically-advanced compressed natural gas fuel systems shipped in fiscal 2007.

Contract revenue for the Quantum Fuel Systems segment increased \$7.6 million, or 109%, from \$7.0 million in fiscal 2007 to \$14.6 million in fiscal 2008. Contract revenue is derived primarily from system development and application engineering of our products under funded automotive OEM contracts, and other funded contract work with the U.S. military and other government agencies. During fiscal 2008, we completed concept development services for a production intent hybrid-electric vehicle for our affiliate, Fisker Automotive, under a \$1.0 million contract. Under a \$13.5 million vehicle development contract with Fisker Automotive that runs through April 2009, we are developing powertrain and software control systems and will integrate our plug-in hybrid electric vehicle architecture into the four-door luxury sports sedan called the "Fisker Karma." Contract revenue is recognized as work progresses on fixed price contracts using the percentage-of-completion method, which relies on estimates of total expected contract revenue and costs. Recognized revenue is subject to revisions as the contracts progress to completion. We anticipate contract revenues in fiscal 2009 will increase over levels realized in fiscal 2008 as a result of the powertrain development work for the Fisker Automotive program and continuing development services related to hybrid and hydrogen development programs with our OEM customers and the military.

Research and development expense associated with development contracts increased \$2.6 million, or 42%, from \$6.2 million in fiscal 2007 to \$8.8 million in fiscal 2008. The increase in expense is primarily a result of higher levels of resources utilized to support expanded contract activities in fiscal 2008. We also realized improved margins on development contracts serviced in fiscal 2008 as compared to the programs serviced in fiscal 2007.

Internally funded research and development expense for the Quantum Fuel Systems segment increased by \$0.8 million, or 10%, from \$7.9 million in fiscal 2007 to \$8.7 million in fiscal 2008. The increase in internally funded expenses in fiscal 2008 is primarily due to increased development of lithium ion battery control systems at our affiliate, Advanced Lithium Power Inc. (ALP) during the period prior to deconsolidation of ALP's accounts.

Selling, general and administrative expenses for the Quantum Fuel Systems segment decreased \$0.2 million, or 4%, from \$4.8 million in fiscal 2007 to \$4.6 million in fiscal 2008. Selling, general and administrative expenses as a percentage of total Quantum Fuel Systems segment operating costs and expenses was 14% in fiscal 2008 as compared to 16% in fiscal 2007.

Amortization of intangibles for the Quantum Fuel Systems segment primarily relates to the Corporate Alliance Agreement with General Motors. The expense in fiscal year 2008 was the same as in fiscal 2007 and amounted to \$1.7 million.

Operating loss for the Quantum Fuel Systems segment decreased \$5.1 million, or 41%, from \$12.4 million in fiscal 2007 to \$7.3 million in fiscal 2008. This improvement mainly relates to higher margins earned on product shipments and customer development programs due to the shift in product mix and technology focus over the last year. We expect the Quantum Fuel Systems segment to reduce its overall operating loss in fiscal 2009 as compared to fiscal 2008 primarily as a result of higher anticipated revenues.

Corporate

Corporate expenses increased by \$0.4 million, or 4%, from \$11.0 million in fiscal 2007 to \$11.4 million in fiscal 2008. Corporate expenses reported for this segment reflect the general and administrative expenses that indirectly support our ongoing Quantum Fuel Systems operating segment and our anticipated future operating segments. Corporate expenses consist primarily of personnel costs, share-based compensation costs and related general and administrative costs for executive, finance, legal, human resources, investor relations and our board of directors. The portion of historical corporate expenses that indirectly supported the operations of the Tecstar Automotive Group are not included in the Corporate reporting segment and have been classified as part of discontinued operations on the accompanying consolidated statements of operations. Included in Corporate expenses is \$3.0 million and \$2.6 million of share-based compensation for fiscal 2007 and 2008, respectively. We expect the Corporate segment to incur similar levels of expenses in fiscal 2009 as compared to fiscal 2008.

Non-Reporting Segment Results

Interest Income and Expense. Interest expense, net of interest income, amounted to \$2.2 million in fiscal 2008 as compared to net interest expense of \$16,000 realized in fiscal 2007. Interest expense primarily relates to debt instruments payable to our current secured lender in which proceeds were initially provided in January 2007. These debt instruments have been subsequently modified or restructured on various dates through January 16, 2008 and also in fiscal 2009 on May 30, 2008. Total outstanding obligations under debt instruments amounted to \$41.9 million as of April 30, 2008. Interest earned on investments has been insignificant since we liquidated our existing portfolio in December 2006. Interest expense for fiscal 2008 includes \$0.2 million of additional expense related to amortization of debt origination costs and \$0.3 million as a reduction of expense related to the amortization of the debt premium resulting from the convertible note dated January 16, 2008. We expect interest expense to increase in fiscal 2009 due to anticipated higher levels of amounts borrowed and charges associated with increased fair values of debt instruments restructured in May 2008.

Minority Interest in Losses of Subsidiary. During fiscal years 2007 and 2008, our net losses were reduced by \$0.8 million and \$1.7 million, respectively, for the portion of losses incurred by our affiliate, ALP, which were allocated to ALP's minority equity interests through the period that we consolidated our ownership interest in ALP. As a result of dilution in our equity voting interests in ALP below a controlling level on April 10, 2008, we disconsolidated ALP and began recording our ownership interest in ALP under the equity method of accounting.

Equity in Earnings of Affiliate. We account for our ownership interest in Asola, acquired on January 4, 2008, under the equity method of accounting. During fiscal 2008, we recorded our share of Asola's earnings for the period subsequent to the transaction, which amounted to \$0.3 million. Our ownership interest in Fisker Automotive, since the formation on August 7, 2007 and our ownership interest in ALP, since April 10, 2008, are also accounted for under the equity method of accounting; however, we have not recognized any losses realized by these two affiliates under the equity method as our net investment balance in these two affiliates is zero and we have no obligation to fund deficit balances of the businesses.

Income Taxes. Our income tax expense is nominal for both fiscal 2007 and fiscal 2008 primarily as a result of our lack of earnings history. As a result of our historical losses, we have generated significant net operating losses that we can carry forward to offset taxable earnings that we generate in the future. We expect that income taxes will continue to be nominal during fiscal 2009.

Discontinued Operations - Tecstar Automotive Group Segment

The Tecstar Automotive Group business segment ceased operations on January 16, 2008 in connection with the transfer of substantially all of its assets. Accordingly, the activities of the Tecstar Automotive Group reporting segment are reported as a single line item in the accompanying consolidated statements of operations as loss from discontinued operations.

The discontinued operations of the Tecstar Automotive Group business segment generated losses, net of tax effects, of \$117.9 million and \$66.1 million in fiscal 2007 and fiscal 2008, respectively. The Tecstar Automotive Group business segment incurred a loss from business operations of \$74.7 million during fiscal 2008 prior to the date of disposal and a gain of \$8.6 million was recognized in connection with the disposal.

Results of Operations

Years Ended April 30, 2006 and 2007

Net revenue and operating loss for our continuing operations by business segment for the years ended April 30, 2006 and 2007 were as follows:

	Revenue		Operating Loss	
	Year Ended April 30		Year Ended April 30	
	2006	2007	2006	2007
	(in thousands)			
Quantum Fuel Systems	\$19,782	\$17,679	\$(13,383)	\$(12,444)
Corporate(1)	—	—	(5,912)	(10,992)
Total	<u>\$19,782</u>	<u>\$17,679</u>	<u>\$(19,295)</u>	<u>\$(23,436)</u>

(1) Represents corporate expenses not directly specific to supporting the Quantum Fuel Systems reporting segment.

Overall revenue decreased \$2.1 million mainly as a result of lower levels of contract development services in fiscal 2007 as compared to fiscal 2006 that offset increased product sales. Overall operating loss increased \$4.1 million, from \$19.3 million in fiscal 2006 to \$23.4 million in fiscal 2007 primarily due to lower overall revenues and \$3.4 million in share-based compensation expense recognized with the adoption of SFAS 123R beginning in fiscal 2007.

Quantum Fuel Systems Segment

Product sales for the Quantum Fuel Systems segment increased \$1.9 million, or 22%, from \$8.8 million in fiscal 2006 to \$10.7 million in fiscal 2007. Product sales during fiscal 2006 and 2007 primarily consist of orders associated with General Motors' pick-up trucks equipped with our bi-fuel and compressed natural gas fuel systems and our hydrogen fuel metering and fuel storage systems for Toyota's fuel cell bus platform. In fiscal 2007, we also began deliveries of hydrogen hybrid vehicles that provided sales of \$1.4 million. Sales related to compressed natural gas fuel systems were at the same level in both fiscal 2006 and fiscal 2007 at \$8.2 million. Sales related to Toyota's bus platform were \$0.7 million in fiscal 2006 and \$1.0 million in fiscal 2007.

Cost of product sales for the Quantum Fuel Systems segment increased \$0.2 million, or 2%, from \$9.3 million in fiscal 2006 to \$9.5 million in fiscal 2007. The increase in fiscal 2007 is mainly due to the higher overall sales volume in the segment. Gross profits on product sales for the Quantum Fuel Systems segment increased from a loss of \$0.5 million in fiscal 2006 to a gross profit of \$1.2 million in fiscal 2007. The favorable trend realized is mainly attributable to the increased sales volume and reductions in variable overhead costs in fiscal 2007.

Contract revenue for the Quantum Fuel Systems segment decreased \$4.0 million, or 36%, from \$11.0 million in fiscal 2006 to \$7.0 million in fiscal 2007. Contract revenue for these periods is derived primarily from system development and application engineering of our products under funded General Motors and other OEM contracts, and other funded contract work with the U.S. military and other government agencies.

Research and development expense associated with funded development contracts decreased \$3.2 million, or 34%, from \$9.4 million in fiscal 2006 to \$6.2 million in fiscal 2007 mainly due to a reduced level of funded program activities. Internally funded research and development expense for the Quantum Fuel Systems segment decreased by \$0.5 million, or 6%, from \$8.4 million in fiscal 2006 to \$7.9 million in fiscal 2007.

Selling, general and administrative expenses for the Quantum Fuel Systems segment increased \$0.4 million, or 9%, from \$4.4 million in fiscal 2006 to \$4.8 million in fiscal 2007. Selling, general and administrative expenses as a percentage of total Quantum Fuel Systems segment operating costs and expenses was 16% in fiscal 2007 compared to 13% in fiscal 2006. A portion of the increase in fiscal 2007 related to share-based compensation charges of \$0.1 million as a result of the adoption of SFAS 123R.

Amortization of intangibles for the Quantum Fuel Systems segment relates to the Corporate Alliance Agreement with General Motors. The expense in fiscal year 2007 was the same as in fiscal 2006 and amounted to \$1.7 million.

Operating loss for the Quantum Fuel Systems segment in fiscal 2007 was \$12.4 million, a decrease of \$1.0 million, compared to fiscal 2006 loss of \$13.4 million primarily as a result of improved margins realized on product shipments.

Corporate

Corporate expenses increased \$5.1 million, or 86%, from \$5.9 million in fiscal 2006 to \$11.0 million in fiscal 2007. The increase in fiscal 2007 compared to fiscal 2006 was due in part to share-based compensation expense of \$2.9 million as a result of the adoption of SFAS 123R, increased audit related fees and services of \$0.2 million and \$0.4 million for investor relation expenses. Corporate expenses as a percentage of total revenues increased to 62% for fiscal 2007 as compared to 30% for fiscal 2006.

Non-Reporting Segment Results

Interest Income and Expense. We recognized \$0.9 million in interest income, net of interest expense, in fiscal 2006 as compared to net interest expense of \$16,000 in fiscal 2007. Interest expense for fiscal 2007 includes \$0.1 million of additional expense related to amortization of debt origination costs.

Minority Interest in Losses of Subsidiary. During fiscal years 2006 and 2007, our net losses were reduced by \$0.1 million and \$0.8 million, respectively, for the portion of losses incurred by our affiliate, ALP, which were allocated to ALP's minority equity interests.

Income Taxes. Our income tax expense is nominal for both fiscal 2006 and fiscal 2007 primarily as a result of our lack of earnings history. As a result of our historical losses, we have generated significant net operating losses that we can carry forward to offset taxable earnings that we generate in the future.

Discontinued Operations-Tecstar Automotive Group Segment

The Tecstar Automotive Group business segment ceased operations on January 16, 2008 in connection with the transfer of substantially all of its assets. Accordingly, the activities of the Tecstar Automotive Group reporting segment are reported as a single line item in the accompanying consolidated statements of operations as loss from discontinued operations.

The discontinued operations of the Tecstar Automotive Group business segment generated losses, net of tax effects, of \$17.2 million and \$117.9 million in fiscal 2006 and fiscal 2007, respectively.

Liquidity and Capital Resources

Cash Flow Activities

Net cash used in operating activities of our continuing operations during fiscal 2008 was \$13.9 million as compared to \$14.5 million during fiscal 2007, which excludes cash used in discontinued operations. The cash used during fiscal 2008 is primarily due to a net loss from continuing operations of \$13.2 million before the non-cash effects of depreciation and amortization, stock compensation charges, minority interest in losses of subsidiaries, interest on long term obligations and other items. Changes in operating assets and liabilities used an additional \$0.7 million in cash. During the fourth quarter of fiscal 2008, we used \$0.8 million in cash from operating activities of continuing operations. We believe the level of net cash to be used in operations for the first quarter of fiscal 2009 will approximate the fourth quarter usage and then increase for the remainder of the fiscal year, although at levels that will be somewhat less than the overall net cash used in fiscal 2008.

Net cash used in investing activities of our continuing operations during fiscal 2008 was \$11.8 million as compared to net cash used of \$20.0 million during fiscal 2007. The cash used in fiscal 2008 and 2007 primarily relates to cash provided to operations now classified as discontinued in the amount of \$9.6 million and \$34.8 million for fiscal 2008 and fiscal 2007, respectively. Cash used in fiscal 2007 was offset in part by the sale of our marketable securities portfolio in December 2006 that generated \$15.0 million of net cash proceeds. During fiscal 2008, we also used cash associated with the purchase of an ownership interest in Asola of \$0.6 million and purchases of property and equipment of \$1.6 million.

Net cash provided by financing activities of our continuing operations during fiscal 2008 was \$29.2 million as compared to \$32.2 million during fiscal 2007. Cash provided during fiscal 2008 was principally from the sale of our common stock and borrowings from our lender. We sold 12.5 million shares of our stock to investors in a private placement in June 2007 that provided \$17.6 million in net proceeds and we received \$10.2 million in additional proceeds under new debt or modified debt arrangements, primarily from our lender. In addition, we recorded \$1.5 million in contributions from minority interest holders of ALP in fiscal 2008 during the period in which we consolidated the accounts of ALP.

Capital Resources

On June 29, 2006, we completed a private placement transaction which yielded proceeds of \$12.5 million from the sale of 4.4 million shares of our common stock at a price of \$2.84 per share, which represented a 10% discount on the June 29, 2006 closing price of \$3.15. On October 27, 2006, we completed a private placement transaction which yielded proceeds of \$10.0 million from the sale of 6.1 million shares of our common stock at a price of \$1.64 per share, which represented a 20% discount on the October 27, 2006 closing price of \$2.05. The investors also received warrants in connection with the private placement transactions. In January and February 2007, we received \$1.3 million from the exercise of a portion of the warrants issued in connection with the private placement that closed on October 27, 2006.

In December 2006, we used approximately \$15.0 million of proceeds from the sale of our marketable securities portfolio and other cash equivalents to reduce the outstanding borrowings under credit facilities with a commercial bank. On January 31, 2007 we secured a \$30.6 million credit facility with an asset-based lender and used \$9.6 million of proceeds from the new facility to repay the remaining principal and accrued interest owed under commercial bank credit facilities. This facility has been modified and restructured on certain dates, most notably in January 2008 in connection with the disposal of the Tecstar Automotive Group and in May 2008 in connection with incremental borrowings secured from our lender. Prior to the restructure in January 2008, the amended credit facility included a revolving line of credit with maximum availability of \$23.6 million and a \$10.0 million term note.

On June 22, 2007, we completed a private placement transaction which yielded proceeds of \$18.75 million from the sale of 12.5 million shares of our common stock at a price of \$1.50 per share, which represented a 28% discount on the June 21, 2007 closing price of \$2.09. The investors also received warrants to purchase

15.0 million shares of our common stock at an exercise price of \$2.09 in connection with the transaction. The warrants expire in December 2014. The transaction triggered a reset of the conversion price of the senior subordinated convertible note obligations from \$2.36 to \$1.35 per share and a reset of the exercise price of the "A" warrants issued in the private placement that we closed in October 2006 from \$2.36 to \$1.50 per share.

On January 16, 2008, we transferred substantially all the assets of the Tecstar Automotive Group business segment to an affiliate of our lender in satisfaction of Tecstar Automotive Group's debt obligations under the senior subordinated convertible notes issued on July 12, 2004 (Tecstar Convertible Notes). In connection therewith, our outstanding debt instruments payable to the lender were restructured in a manner that resulted in the elimination or release of \$20.5 million of debt and provided us with incremental net borrowing capacity of \$1.9 million. We accounted for the changes in the debt structure as a troubled debt restructuring in accordance with SFAS No. 15, "Accounting by Debtors and Creditors for Troubled Debt Restructurings," as a result of concessions granted by the lender by way of modifications to the terms of the existing debt structure and releases of certain debt obligations and guarantees of ours. Although we calculated a contingent gain on the restructure of the debt obligations with the lender, we did not recognize the gain because it is possible that the gain could be offset by future interest charges resulting from the payment multiplier under the Term Note B discussed below. The elimination or release of debt included approximately \$15.5 million secured by Tecstar Automotive Group's assets under the revolving line of credit and a \$5.0 million term note provided by the lender to Tecstar Automotive Group on November 6, 2007. The revolving credit facility, with a remaining availability of approximately \$8.1 million after the transfer of the Tecstar business assets to the lender, was terminated and replaced with a new \$10.0 million term note (Term Note B).

The modified and restructured debt instruments have outstanding obligations of \$41.6 million as of April 30, 2008. These consist of a \$21.6 million convertible note (\$16.2 million face amount, \$4.9 million unamortized premium and \$0.5 million accrued interest) issued on January 16, 2008 that matures on July 1, 2009 (Convertible Note); a \$10.0 million term note issued on January 31, 2007 that matures on January 31, 2010 (Term Note A) and a \$10.0 million term note issued on January 16, 2008 that matures on January 16, 2015 (Term Note B).

The Convertible Note, as amended on May 30, 2008, has an annual interest rate of 11.5% with a cash or payment-in-kind option. The holder of the Convertible Note has the right to extend the maturity date for an additional three years (if exercised, the interest rate is thereafter lowered to 9.5%). The Convertible Note has scheduled semi-annual interest payment dates on January 1 and July 1 of each year until maturity and the principal cannot be prepaid in part or whole by us without consent of the holder. The carrying value of the Convertible Note includes an unamortized premium of \$4.9 million as of April 30, 2008 that represents the estimated fair value of the conversion option above the face amount of the note transferred from the Tecstar Convertible Notes in connection with the debt restructure. The conversion price on the Convertible Note is \$1.35 per share and the holder has the option to convert at any time until maturity.

The May 2008 modifications to the Convertible Note also now provide for the lender to be entitled to receive upon conversion of all or part of the balance due under the Convertible Note, the sum of each coupon that would otherwise have been paid on the portion of the Convertible Note converted (referred to as the "Make-Whole Amount"). The Make-Whole Amount is payable in shares of our stock. The number of shares issuable in payment of the Make-Whole Amount is determined by dividing the Make-Whole Amount by \$1.50. The maximum amount of the Convertible Note that the lender may convert during the first six months is limited to \$8.0 million (Conversion Cap). Provided that, conversions effected on any trading day on which our shares are trading at a price in excess of \$2.50 per share do not count against the Conversion Cap. The Conversion Cap expires after six months. Additionally, the anti-dilution conversion price reset provision was eliminated in connection with the modifications.

The Term Note A, as amended on January 16, 2008 and on May 30, 2008, has required monthly interest payments in cash in arrears at 12.0% through September 15, 2008, increasing by 1.0% each month thereafter, up

to a maximum rate of 18.0%. Principal reductions of \$0.4 million are required commencing on October 15, 2008, until maturity, with an additional payment of \$3.9 million required on March 15, 2009. We have the option to prepay the principal ahead of the scheduled payment dates without penalty. We also have the option to repay the principal with shares of our common stock. If we choose to repay in common stock, the value of the shares delivered will be determined based on 95% of the volume-weighted average price (VWAP) of our stock for the five business days prior to the payment date. If the Company elects to make a payment in shares and cannot issue shares to the lender as a result of Nasdaq's Marketplace Rules as further defined below, any principal payment requirement is deferred under the note but must be made in cash on August 1, 2009 if the payment obligation is not satisfied by that date.

The Term Note B, as amended on May 30, 2008, requires monthly interest payments in arrears at a fixed rate of 6.5%. We and the holder of the Term Note B cannot prepay or call, respectively, any part of the principal amount due until January 17, 2010. We have the option to repay the principal with shares of our common stock, provided certain conditions are met, most notably, a share price of at least \$0.50 for five consecutive business days prior to the payment date. When demand for payment is made, the principal amount that is due and payable is equal to the principal amount so demanded multiplied by the greater of (A) 1.0 and (B) 1.5 multiplied by the lesser of (x) the VWAP for our common stock for the five business days immediately prior to the repayment date and (y) \$3.50. The minimum amount of principal that is payable through the maturity date under the multiplier is \$10.0 million and the maximum amount of principal that is payable under the multiplier is \$52.5 million. Although prior to the May 2008 amendment the maximum amount of principal that is payable under the multiplier was \$37.5 million, the number of shares issuable in payment of the principal remained fixed at 15.0 million. Upon the reduction of principal of the Term Note B, any increase in the payment or payments resulting from the multiplier will be recorded as a charge to interest expense. In addition, any increase in fair value of the Term Note B, including an anticipated increase in fiscal 2009 as a result of the May 30, 2008 amendment, will be recorded as a charge to interest expense.

On May 30, 2008, we received \$7.5 million in proceeds under a new term note that matures in August 31, 2009 (Term Note C). Principal payments in monthly installments of \$1.25 million commence on March 1, 2009 until maturity. Interest accrues on the note at 9.0% per annum and is due and payable on the first day of each month commencing on July 1, 2008. We may elect to pay the interest in cash or add it to the unpaid principal balance. We have the option to prepay the principal ahead of the scheduled payment dates without penalty. We also have the option to repay the principal with shares of our common stock. If we choose to repay in common stock, the value of the shares delivered will be determined based on the lower of: (i) 95% of the VWAP of our stock for the five business days prior to the payment date, and (ii) our closing share price on the day immediately preceding the payment due date. If we elect to make a payment in shares and cannot issue shares to the lender as a result of Nasdaq's Marketplace Rules, any principal payment requirement is deferred under the note but must be made in cash on August 1, 2009 if the payment obligation is not satisfied by that date.

Also on May 30, 2008, we obtained a \$10.0 million unconditional commitment (May 2008 Commitment) from our lender that allows us to draw on the commitment at our option and also allows the lender to fund the commitment at the lender's option under certain defined structures. The option for either party expires on August 31, 2009. The May 2008 Commitment replaced a \$5.0 million commitment obtained in July 2007 with our lender that was unexercised and originally scheduled to expire on August 1, 2008. To date, neither our lender nor us has exercised the option under the May 2008 Commitment.

Should we choose to draw on the May 2008 Commitment, the lender has the option to choose between the three following structures: (i) in exchange for our common stock at a 25.0% discount to market price with 100.0% warrant coverage at an exercise price equal to market price at the time of funding, (ii) a two year secured convertible note, the conversion price equal to a 10.0% discount to the market price and the coupon on the note equal to 12.0% payable in our common stock, and (iii) a senior secured straight note that redeems in cash at 120% of face value after one year. In exchange for extending the commitment, we granted to the lender the

option to make a \$10.0 million investment that will be structured as a non-interest bearing convertible note priced at 100.0% of par and redeemable at 120.0% of par two years after the funding date. The note under this structure would convert into our common stock at a price equal to the market price.

Each of the debt instruments with our lender have structures that allow for the satisfaction of principal to be paid in shares of our common stock, either upon conversion, or at our option under the term notes. Although we anticipate that a significant portion or all of the principal obligations can be satisfied in shares in lieu of cash, all of our debt instruments with our lender prohibit us from issuing shares to the lender in payment of any amounts if the issuance would cause the aggregate number of shares issued in connection with or under the notes to exceed 19.99% of our issued and outstanding shares in violation of the Marketplace Rules of the Nasdaq Stock Market (Marketplace Rules).

Transaction fees associated with the execution of the credit facilities and amendments with the lender and reflected as deferred loan fees on the consolidated balance sheet at April 30, 2007 and 2008, are being amortized against interest expense over the remaining life of the debt instruments.

We were in compliance with all material covenants, reporting and other requirements of the debt instruments with our lender as of April 30, 2008.

Liquidity

The ratio of current assets to current liabilities decreased from 1.4 as of April 30, 2007 to 1.0 as of April 30, 2008. During fiscal 2008, our total working capital decreased by \$16.4 million, from \$17.3 million at April 30, 2007 to \$0.9 million at April 30, 2008. The decline was mainly related to the disposal of the Tecstar Automotive Group in January 2008 that represented \$12.3 million of working capital reported as of April 30, 2007.

We have incurred recurring operating losses and negative cash flows from operating activities. Although we were able to dispose of the Tecstar Automotive Group in fiscal 2008, we generated negative cash flows from our continuing operating activities of \$13.9 million for the year ended April 30, 2008. From our inception through April 30, 2008, we have funded our operations and strategic investments primarily with proceeds from public and private offerings of our common stock and borrowings with financial institutions and our asset-based lender. Our historical operating results, capital resources and financial position in combination with current projections and estimates were considered in our plan and intentions to fund operations over the next twelve months. Our current operating plan anticipates increased revenues and improved profit margins. The operating plan also requires that we will either have to draw down on some or all of the unconditional commitment from our lender or alternatively raise capital through public or private offerings of equity or debt securities.

Our principal sources of liquidity amount to \$23.5 million, consisting of \$6.0 million of cash and cash equivalents at April 30, 2008, \$7.5 million of proceeds received on Term Note C on May 30, 2008 and \$10.0 million of available committed funding from our lender that we secured on May 30, 2008. Based on current projections and estimates, we believe that our working capital and principal sources of liquidity are sufficient to fund our operating activities and obligations through at least April 30, 2009. We also believe additional financing, if required, can be adequately sourced; however, we cannot provide any assurances that we will be able to secure additional funding on terms acceptable to us, if at all. Our inability to achieve our current operating plan or raise capital to cover any shortfall would have a material adverse affect on our ability to meet our obligations as they become due without substantial disposition of assets or other similar actions outside the ordinary course of business.

Our long-term future cash requirements will depend on numerous factors, including our revenue base, our profit margins, our product development activities, our ability to commercialize our fuel and hybrid propulsion systems, market acceptance of our products and controlling costs. We expect to devote substantial capital resources to fund expected losses, continue development programs, developing a manufacturing infrastructure for

our products and meeting our short and long-term debt obligations. We anticipate that we will need to raise additional funds for strategic business opportunities, to achieve commercialization of our products, to develop facilities for mass production of those products, and to fund future operating activities and contractual commitments. If we do not generate sufficient cash flow from operations or if we are unable to issue a sufficient number of shares of our common stock to satisfy our debt obligations, we may also need to raise additional funds to pay off or refinance these debt obligations. The amount of additional financing that we may need to raise cannot be reasonably estimated at this time but will be directly related to our ability to increase revenues and control costs. We believe such financing can be adequately sourced through public or private offerings of equity or debt securities; however, we cannot provide any assurances that we will be able to secure additional funding on terms acceptable to us, if at all. Additionally, we may sell certain long-lived assets to provide for a portion of our liquidity in the future.

Contractual Obligations

The following table contains supplemental information regarding total contractual obligations as of April 30, 2008 (see Notes 5, 11 and 13 of the Notes to Consolidated Financial Statements).

Contractual Obligations	Payments due by Period				
	Total	Less Than One Year	1-3 Years	3-5 Years	More Than 5 Years
Operating Lease Obligations	\$ 12,429,975	\$ 1,489,242	\$ 3,409,650	\$ 3,577,166	\$ 3,953,917
Long-term Debt	37,102,588	7,162,068	29,779,562	160,062	896
Scheduled Interest Payments	8,123,081	2,607,808	3,034,321	1,321,726	1,159,226
Employment Agreements(1)	5,016,250	2,687,500	2,328,750	—	—
Purchase Obligations(2)	180,663,600	3,776,760	21,768,240	48,266,400	106,852,200
Total	<u>\$243,335,494</u>	<u>\$17,723,378</u>	<u>\$60,320,523</u>	<u>\$53,325,354</u>	<u>\$111,966,239</u>

- (1) Includes agreements in place as of May 1, 2008 and consists of the estimated minimum contractual obligations under the arrangements assuming a termination of employment without cause initiated by the Company and benefit continuation assuming a cost to the Company of 15% of base salaries. All agreements remain in place until terminated by either of the parties. For further information about the specific terms of the employment agreements with executive officers, see the text of the employment agreements, the filing dates of which are referenced as exhibits to this report.
- (2) Consists of our unconditional obligations to purchase solar cells from Asola and to provide our share of prepayments to Asola associated with a solar cell purchase arrangement.

Research and Development Funding Commitment. Pursuant to our Corporate Alliance Agreement with General Motors, we have committed to spend \$4.0 million annually for specific research and development projects directed by General Motors to speed the commercialization of our fuel cell related products. Since this commitment was waived or partially waived by General Motors for each of the calendar years 2002 through 2007, we anticipate that this commitment will be waived or partially waived in the future. During fiscal 2008, we spent approximately \$0.1 million for directed research and development activities at the direction of GM.

Royalties. Beginning July 24, 2005 for non-automotive applications and July 24, 2008 for automotive applications, we are obligated to provide revenue sharing payments to General Motors based on a percentage of gross revenue derived from sales of applications developed under the Corporate Alliance Agreement. The revenue sharing payments will equal 5% of applicable gross revenue through July 23, 2015, 4% for the ten-year period ending July 23, 2025, 3% for the ten-year period ending July 23, 2035, and 2% for the ten-year period ending July 23, 2045. On July 23, 2045, we will also be obligated to provide a final revenue sharing payment to General Motors equal to the present value of future revenue sharing payments that would otherwise be payable to General Motors on an annual basis assuming an income stream to General Motors of 2% of our gross revenues in perpetuity. As of April 30, 2008, no revenue sharing payments have been applicable.

Quantitative and Qualitative Disclosures About Market Risk

We are not exposed to market risk from changes in interest rates due to the fixed nature of interest rates associated with our debt instruments. However, we are exposed to market risk from changes in our common stock pursuant to terms of our amended \$10.0 million Term Note B. The amount of the required payments under the note is subject to a multiplier as discussed under Capital Resources above. The minimum amount of principal that is payable through the maturity date under the multiplier is \$10.0 million if our share price is less than \$0.67 and the maximum amount of principal that is payable under the multiplier is capped at \$52.5 million if our share price reaches \$3.50 or above. Specifically, we are at risk that for each increase of \$0.10 in the per share price of our common stock above the \$0.67 level, the payment required on \$10.0 million in outstanding principal will increase by \$1.5 million. We anticipate that we will record an interest charge in our statement of operations equal to the change in the fair value of Term Note B from the date of issuance to the date of the amendment in the first quarter of fiscal 2009. In addition, any future change in the upward adjustment of Term Note B will require an interest charge to the statement of operations in the period such payments are made, and such interest charges could be substantial.

We are exposed to risk from fluctuating currency exchange rates, primarily the U.S. dollar against the euro (Asola affiliate) and against the Canadian dollar (ALP affiliate). Specifically, we are at risk that a future decline in the U.S. dollar against the euro will increase the amount that we will have to pay to satisfy requirements of our long-term supply agreement with Asola. The conversion rate of one euro to one U.S. dollar was 1.56: 1 as of April 30, 2008. We have a remaining commitment to purchase solar cells with a cumulative power of 77.5 MWp through December 31, 2017 at a fixed price of 115.8 million euro or US\$180.7 million based on the currency exchange rate at April 30, 2008; a 10% decline in the U.S. dollar against the euro could require us to pay an additional US\$20.1 million over the course of the remaining agreement. We face transactional currency exposures that arise when our foreign subsidiaries and affiliates enter into transactions denominated in currencies other than their own local currency. We also face currency exposure that arises from translating the results of our Canadian and German operations to the U.S. dollar. Net foreign currency transaction gains or losses were negligible during fiscal 2008.

To date, we have not used any derivative financial instruments for the purpose of reducing our exposure to adverse fluctuations in interest rates or currency exchange rates. We are not a party to leveraged derivatives nor do we hold or issue financial investments for speculative purposes.

Off Balance Sheet Disclosures

We have an unconditional commitment under a November 2007 agreement with Asola to purchase solar cells from Asola and to provide our share of prepayments to Asola over the next twelve months of approximately 2.4 million euro.

As of April 30, 2008, we had no material commitments for capital expenditures.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Information required by Item 305 of Regulation S-K relating to quantitative and qualitative disclosures about market risks appear under the heading "Quantitative and Qualitative Disclosures About Market Risk" in Item 7 of Part II hereof, and is incorporated herein by this reference.

Item 8. Financial Statements and Supplementary Data.

The information required by this item is contained in the consolidated financial statements listed in Item 15(a) of this annual report under the caption "Financial Statements" and appear beginning on page F-1 of this annual report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures.

We have established disclosure controls and procedures to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to the officers who certify the Company's financial reports and to other members of senior management and the Board of Directors.

Based on their evaluation as of April 30, 2008, the Chief Executive Officer and Chief Financial Officer of the Company have concluded that the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) are effective to ensure that the information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms.

(b) Design and Evaluation of Internal Control Over Financial Reporting.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f).

Our internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of our assets;
- Provide reasonable assurance that our transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles;
- Provide reasonable assurances that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements prepared for external purposes in accordance with generally accepted accounting principals. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control—Integrated Framework*, management concluded that our internal control over financial reporting was effective as of April 30, 2008.

Ernst & Young LLP, our independent registered public accounting firm, audited the effectiveness of our internal controls over financial reporting and, based on that audit, issued their report which follows on the next page.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Quantum Fuel Systems Technologies Worldwide, Inc.

We have audited Quantum Fuel Systems Technologies Worldwide, Inc.'s internal control over financial reporting as of April 30, 2008, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Quantum Fuel Systems Technologies Worldwide, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on Quantum Fuel Systems Technologies Worldwide, Inc.'s internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Quantum Fuel Systems Technologies Worldwide, Inc. maintained, in all material respects, effective internal control over financial reporting as of April 30, 2008, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), consolidated balance sheets of Quantum Fuel Systems Technologies Worldwide, Inc. as of April 30, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years ended April 30, 2008 and 2007 of Quantum Fuel Systems Technologies Worldwide, Inc. and our report dated July 2, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Orange County, California
July 2, 2008

(c) Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

Our Chief Operating Officer and Director, Mr. Beitzel, is currently on paid medical disability leave and we do not have an estimate of when, or if, he will return to continue carrying out his duties as Chief Operating Officer on a full time basis. Mr. Beitzel's medical leave of absence was designated by the Company as long-term disability beginning as of April 8, 2008. To date, we have not named another individual to act as our Chief Operating Officer; however, our Chief Executive Officer and Chief Financial Officer are overseeing certain functions previously carried out by the Chief Operating Officer, as necessary, until he returns or until another Chief Operating Officer is named.

PART III

Item 10. Directors, Executive Officer and Corporate Governance.

Information regarding our board of directors, audit committee, audit committee financial expert and code of ethics is set forth under the caption "Election of Directors," in our definitive Proxy Statement to be filed in connection with our fiscal 2008 Annual Meeting of Stockholders and such information is incorporated herein by reference. Information regarding Section 16(a) beneficial ownership compliance is set forth under the caption "Executive Compensation—Compliance with Section 16(a) of the Securities and Exchange Act" in our definitive Proxy Statement to be filed in connection with our fiscal 2008 Annual Meeting of Stockholders and such information is incorporated by reference. A list of our executive officers is included in Part I, Item 1 of this Report under the heading "Executive Officers."

We have adopted a Code of Business Conduct and Ethics that applies to each of our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is posted on our website at www.qtw.com/about/corporate_governance/coc.php.

Item 11. Executive Compensation.

The information required by this item is set forth under the captions "Executive Compensation and Other Information" and "Election of Directors—Compensation of Directors" in our definitive Proxy Statement to be filed in connection with our fiscal 2008 Annual Meeting of Stockholders and such information is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is set forth under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in our definitive Proxy Statement to be filed in connection with our fiscal 2008 Annual Meeting of Stockholders and such information is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions and director Independence.

The information required by this item is set forth under the captions "Certain Relationships and Related Transactions" and "Compensation Committee Interlocks and Insider Participation" in our definitive Proxy Statement to be filed in connection with our fiscal 2008 Annual Meeting of Stockholders and such information is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this item is set forth under the caption "Ratification and Approval of the Appointment of Independent Accountants" in our definitive Proxy Statement to be filed in connection with our fiscal 2008 Annual Meeting of Stockholders and such information is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

(1) Financial Statements. See Consolidated Financial Statements beginning on page F-1.

(2) Financial Statement Schedules. See Schedule II, Valuation and Qualifying Accounts that follow the Consolidated Financial Statements.

All other schedules are omitted because the information is not applicable or is not material, or because the information is included in the consolidated financial statements or the notes thereto.

(3) Exhibits. The following exhibits are filed or incorporated by reference as a part of this report:

- 2.1 Contribution and Distribution Agreement, dated as of July 23, 2002, between IMPCO Technologies, Inc. and the Registrant (filed as Exhibit 10.1 hereto).
- 2.2 Agreement and Plan of Merger, dated as of November 23, 2004, by and among the Registrant, Quake Sub, Inc. and Starcraft Corporation (incorporated herein by reference to Exhibit 2.1 of the Registrant's Current Report on Form 8-K that was filed with the SEC on November 23, 2004).
- 2.3 Agreement and Plan of Merger, dated February 8, 2006, by and among Quantum Fuel Systems Technologies Worldwide, Inc., Regency Acquisition Company, LLC, Regency Conversions, Inc., and the shareholders of Regency Conversions, Inc. (incorporated herein by reference to Exhibit 2.3 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 3.1 Amended and Restated Certificate of Incorporation of the Registrant, dated March 3, 2005 (incorporated herein by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 3.1(b) Certificate of Amendment of Certificate of Incorporation, dated September 28, 2007 (incorporated herein by reference to Exhibit 3.2 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended October 31, 2007, that was filed with the SEC on December 17, 2007).
- 3.2 Amended and Restated Bylaws of the Registrant (incorporated herein by reference to Exhibit 3.2 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2004, which was filed with the SEC on July 29, 2002).
- 4.1 Specimen Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form 10 (File No. 000-49629), which was filed with the SEC on February 13, 2002).
- 4.2 Binding \$5 million commitment letter from Whitebox Advisors, LLC, dated July 16, 2007 (incorporated herein by reference to Exhibit 4.1 of the Registrant's Quarterly Report on Form 10-Q for the fiscal year quarter ended July 31, 2007, which was filed with the SEC on September 17, 2007).
- 4.3 Convertible Note Purchase Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 99.3 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 4.4 Convertible Promissory Note, dated January 16, 2008, issued by the Registrant to WB QT, LLC (incorporated herein by reference to Exhibit 99.4 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).

- 10.1 Contribution and Distribution Agreement, dated as of July 23, 2002, between IMPCO Technologies, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.1 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.2 Tax Allocation and Indemnification Agreement, dated as of July 23, 2002, between IMPCO Technologies, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.2 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.3 Transition Services Agreement, dated as of July 23, 2002, between IMPCO Technologies, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.3 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.4 Employee Benefit Matters Agreement, dated as of July 23, 2002, between IMPCO Technologies, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.4 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.5 Strategic Alliance Agreement, dated as of July 23, 2002, between IMPCO Technologies, Inc. and the Registrant (incorporated herein by reference to Exhibit 10.5 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.6(a) Quantum Fuel Systems Technologies Worldwide, Inc. Amended 2002 Stock Incentive Plan and Form of Award Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Quarterly Report on Form 10-Q for the quarter ended July 31, 2005 that was filed with the SEC on September 9, 2005).
- 10.6(b)* Quantum Fuel Systems Technologies Worldwide, Inc. 2002 Stock Incentive Plan and Form of Award Agreement (incorporated herein by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-96923), which was filed with the SEC on July 23, 2002).
- 10.7† Corporate Alliance Agreement, dated June 12, 2001, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.31 of the Registration Statement on Form S-3 (File No. 333-63726) of IMPCO Technologies, Inc., which was filed with the SEC on July 9, 2001).
- 10.8 Master Technical Development Agreement, dated June 12, 2001, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.32 of the Registration Statement on Form S-3 (File No. 333-63726) of IMPCO Technologies, Inc., which was filed with the SEC on July 9, 2001).
- 10.9 Stock Transfer Agreement, dated June 12, 2001, between the Registrant and General Motors Corporation, (incorporated herein by reference to Exhibit 10.33 of the Registration Statement on Form S-3 (File No. 333-63726) of IMPCO Technologies, Inc., which was filed with the SEC on July 9, 2001).
- 10.10 Registration Rights Agreement, dated June 12, 2001, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.34 of the Registration Statement on Form S-3 (File No. 333-63726) of IMPCO Technologies, Inc., which was filed with the SEC on July 9, 2001).
- 10.11 Lease, dated August 18, 1997, between Klein Investments, Family Limited Partnership, as Lessor, and IMPCO Technologies, Inc., as Lessee (incorporated herein by reference to Exhibit 10.12 of the Annual Report on Form 10-K of IMPCO Technologies, Inc. for the fiscal year ended April 30, 1998, which was filed with the SEC on July 29, 1998).

- 10.12 Lease, dated as of March 31, 2000, by and between IMPCO Technologies, Inc. and Braden Court Associates (incorporated herein by reference to Exhibit 10.20 of the Annual Report on Form 10-K of IMPCO Technologies, Inc. for the fiscal year ended April 30, 2000, which was filed with the SEC on June 30, 2000).
- 10.13 Memorandum of Understanding and Teaming Agreement, dated May 22, 2000, between IMPCO Technologies, Inc. and ATK Thiokol Propulsion (incorporated herein by reference to Exhibit 10.14 of the Registrant's Registration Statement on Form 10 (File No. 000-49629), which was filed with the SEC on February 13, 2002).
- 10.14 Amendment Nos. 1, 2 and 3 to Memorandum of Understanding and Teaming Agreement, among the Registrant, IMPCO Technologies, Inc. and ATK Thiokol Propulsion (incorporated herein by reference to Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.15 First Amendment to Corporate Alliance Agreement, dated as of July 19, 2002, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.15 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.16 First Amendment to Stock Transfer Agreement, dated as of July 19, 2002, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.16 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.17 Amendment to Lease Agreement, dated October 18, 2000, among the Registrant, IMPCO Technologies, Inc. and Braden Court Associates (incorporated herein by reference to Exhibit 10.17 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.18 Amendment to Lease Agreement, dated October 31, 2000, among the Registrant, IMPCO Technologies, Inc. and Klein Investments (incorporated herein by reference to Exhibit 10.18 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2002, which was filed with the SEC on July 29, 2002).
- 10.19 Lease, dated March 5, 2004, between Klein Investments, Family Limited Partnership, as Lessor, and the Registrant, as Lessee (incorporated by reference to Exhibit 10.30 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2004, which was filed with the SEC on July 1, 2004).
- 10.20 Memorandum of Understanding, dated June 2, 2004, between the Registrant and Sumitomo Corporation (incorporated herein by reference to Exhibit 10.31 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2004, which was filed with the SEC on July 1, 2004).
- 10.21 Form of Indemnification Agreement between the Registrant and each of its directors and executive officers (incorporated herein by reference to Exhibit 10.21 of the Registrant's Registration Statement on Form S-1 (File No. 333-101668), which was filed with the SEC on December 5, 2002).
- 10.22(a) Amended and Restated Employment Agreement, dated May 1, 2006, by and between Registrant and Alan P. Niedzwiecki (incorporated herein by reference to Exhibit 10.22(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.22(b)* Employment Agreement, dated May 1, 2005, by and between the Registrant and Alan P. Niedzwiecki (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K that was filed with the SEC on May 5, 2005).

- 10.22(c)* Employment Agreement, dated August 1, 2002, between the Registrant and Alan P. Niedzwiecki (incorporated herein by reference to Exhibit 10.19 of the Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2002, which was filed with the SEC on September 16, 2002).
- 10.22(d)* Addendum A to Employment Agreement, dated as of February 10, 2003, between the Registrant and Alan P. Niedzwiecki (incorporated herein by reference to Exhibit 10.23 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2003, which was filed with the SEC on July 2, 2003).
- 10.22(e)* Addendum B to Employment Agreement, dated as of November 2, 2003, between the Registrant and Alan P. Niedzwiecki (incorporated herein by reference to Exhibit 10.28 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2004, which was filed with the SEC on July 1, 2004).
- 10.23(a) Employment Agreement, dated January 10, 2006, between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.23(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.23(b)* Employment Agreement, dated May 1, 2005, by and between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K that was filed with the SEC on May 5, 2005).
- 10.23(c)* Employment Agreement, dated September 1, 2002, between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.20 of the Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2002, which was filed with the SEC on September 16, 2002).
- 10.23(d)* Addendum A to Employment Agreement, dated as of February 10, 2003, between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.24 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2003, which was filed with the SEC on July 2, 2003).
- 10.23(e)* Addendum B to Employment Agreement, dated as of February 10, 2003, between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.25 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2003, which was filed with the SEC on July 2, 2003).
- 10.23(f)* Addendum C to Employment Agreement, dated as of November 2, 2003, between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.29 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2004, which was filed with the SEC on July 1, 2004).
- 10.24* Employment Agreement, dated May 1, 2005, by and between the Registrant and Glenn D. Moffett (incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K that was filed with the SEC on May 5, 2005).
- 10.25(a) Employment Agreement, dated May 1, 2006, by and between the Registrant and Dale L. Rasmussen (incorporated herein by reference to Exhibit 10.25(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.25(b)* Consulting Agreement, dated May 1, 2005, by and between the Registrant and Dale L. Rasmussen (incorporated herein by reference to Exhibit 10.5 of the Registrant's Current Report on Form 8-K that was filed with the SEC on May 5, 2005).
- 10.26(a) Employment Agreement, effective May 1, 2006, by and between the Registrant and Jeffrey P. Beitzel (incorporated herein by reference to Exhibit 10.26(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).

- 10.26(b)* Employment Agreement, dated March 3, 2005, by and between the Registrant and Jeffrey P. Beitzel (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 10.27* Employment Agreement, dated March 3, 2005, by and between the Registrant and Michael H. Schoeffler (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 10.28(a) Employment Agreement, effective May 1, 2006, by and between Tecstar Automotive Group, Inc. and Richard C. Anderson (incorporated herein by reference to Exhibit 10.28(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.28(b)* Employment Agreement, dated March 3, 2005, by and between Starcraft Corporation and Richard C. Anderson (incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 10.29(a) Employment Agreement, effective May 1, 2006, by and between Tecstar Automotive Group, Inc. and Douglass C. Goad (incorporated herein by reference to Exhibit 10.29(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.29(b)* Employment Agreement, dated March 3, 2005, by and between Starcraft Corporation and Douglass C. Goad (incorporated herein by reference to Exhibit 10.4 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 10.30(a) Employment Agreement, effective May 1, 2006, by and between Tecstar Automotive Group, Inc. and Joseph E. Katona III (incorporated herein by reference to Exhibit 10.30(a) of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.30(b)* Employment Agreement, dated March 3, 2005, by and between Starcraft Corporation and Joseph E. Katona III (incorporated herein by reference to Exhibit 10.5 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 10.31* Form of Restricted Stock Award Agreement under the Quantum Fuel Systems Technologies Worldwide, Inc. 2002 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.4 of the Registrant's Current Report on Form 8-K that was filed with the SEC on May 5, 2005).
- 10.33* Summary of Director Compensation Arrangements for Fiscal Year 2007 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K that was filed with the SEC on June 1, 2006).
- 10.34 Registration Rights Agreement, dated March 3, 2005, by and among the Registrant, Kelly L. Rose, Jeffrey P. Beitzel, Richard C. Anderson and Douglass C. Goad (incorporated herein by reference to Exhibit 10.6 of the Registrant's Current Report on Form 8-K that was filed with the SEC on March 9, 2005).
- 10.35 Loan Agreement, dated February 13, 2002, by and between Tecstar, LP and Comerica Bank (incorporated herein by reference to Exhibit 4.1 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended March 31, 2002, which was filed with the SEC on May 7, 2002).
- 10.36 First Amendment to Loan Agreement and Note, dated as of May 13, 2002, by and between Tecstar, LP and Comerica Bank (incorporated herein by reference to Exhibit 4.4(b) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended September 28, 2003, which was filed with the SEC on December 5, 2003).

- 10.37 Amendment No. 2 to Loan Agreement and Consent, dated as of June 7, 2002, by and between Tecstar, LP and Comerica Bank (incorporated herein by reference to Exhibit 4.4(c) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended September 28, 2003, which was filed with the SEC on December 5, 2003).
- 10.38 Amendment to Loan Agreement, dated August 1, 2003, between Tecstar, LP and Comerica Bank (incorporated herein by reference to Exhibit 4.2 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended June 29, 2003, which was filed with the SEC on August 6, 2003).
- 10.39 Loan Agreement, dated June 28, 2002, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.15 of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended September 29, 2002, which was filed with the SEC on December 24, 2002).
- 10.40 Amendment No. 1 to Loan Agreement, dated April 6, 2003, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.1 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended March 30, 2003, which was filed with the SEC on May 8, 2003).
- 10.41 Amendment to Loan Agreement, dated August 1, 2003, between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.1 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended June 29, 2003, which was filed with the SEC on August 6, 2003).
- 10.42 Credit Agreement, dated January 16, 2004, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.1 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended December 28, 2003, which was filed with the SEC on February 11, 2004).
- 10.43 Amendment No. 1 to Credit Agreement, dated January 30, 2004, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.1 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended March 28, 2004, which was filed with the SEC on May 12, 2004).
- 10.44 Amendment No. 2 to Credit Agreement, dated March 28, 2004, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.2 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended March 28, 2004, which was filed with the SEC on May 12, 2004).
- 10.45 Amendment No. 3 to Credit Agreement, dated March 31, 2004, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.6(d) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended October 3, 2004, which was filed with the SEC on December 17, 2004).
- 10.46 Amendment No. 4 to Credit Agreement, dated March 31, 2004, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.6(e) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended October 3, 2004, which was filed with the SEC on December 17, 2004).
- 10.47 Amendment No. 5 to Credit Agreement, effective September 30, 2004, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 4.6(f) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended October 3, 2004, which was filed with the SEC on December 17, 2004).
- 10.48 Form of Revolving Note of Starcraft Corporation to Comerica Bank, dated as of January 16, 2004 (incorporated herein by reference to Exhibit 4.2 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the quarter ended December 28, 2003, which was filed with the SEC on February 11, 2004).

- 10.49 Form of Swing-line Note of Starcraft Corporation to Comerica Bank, dated as of January 16, 2004 (incorporated herein by reference to Exhibit 4.3 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the quarter ended December 28, 2003, which was filed with the SEC on February 11, 2004).
- 10.50 Loan Agreement, made as of April 30, 2003, between Tecstar Manufacturing Canada Limited and Comerica Bank (incorporated herein by reference to Exhibit 4.8 of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended September 28, 2003, which was filed with the SEC on December 5, 2003).
- 10.51 First Amendment to Loan Agreement, dated August 1, 2003, between Tecstar Manufacturing Canada, Ltd. and Comerica Bank (incorporated herein by reference to Exhibit 4.3 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended June 29, 2003, which was filed with the SEC on August 6, 2003).
- 10.52 Promissory Note, dated as of September 26, 2002, from Starcraft Corporation to G. Ray Stults in the principal amount of \$803,900 (incorporated herein by reference to Exhibit 4.16 of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended September 29, 2002, which was filed with the SEC on December 24, 2002).
- 10.53 Promissory Note, dated as of September 26, 2002, from Starcraft Corporation to Kelly L. Rose in the principal amount of \$670,220 (incorporated herein by reference to Exhibit 4.17 of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended September 29, 2002, which was filed with the SEC on December 24, 2002).
- 10.54 Convertible Senior Subordinated Note Purchase Agreement, dated July 12, 2004, among Starcraft Corporation and certain purchasers named therein (incorporated herein by reference to Exhibit 4.1 of the Current Report on Form 8-K of Starcraft Corporation filed with the SEC on July 14, 2004).
- 10.55 License Agreement, dated September 12, 1991, by and between Starcraft Corporation and Starcraft RV, Inc. (incorporated herein by reference to Exhibit 10.24 of the Registration Statement on Form S-1 of Starcraft Corporation filed with the SEC on June 3, 1993).
- 10.56 License Agreement, dated January 18, 1991, by and between Starcraft Corporation and Starcraft Recreational Products, Ltd. (incorporated herein by reference to Exhibit 10.25 of the Registration Statement on Form S-1 of Starcraft Corporation filed with the SEC on June 3, 1993).
- 10.57 Reimbursement Agreement, dated as of December 12, 2000, between Starcraft Corporation, National Mobility Corporation, Imperial Automotive Group, Inc., Starcraft Automotive Group, Inc., Kelly L. Rose and G. Ray Stults (incorporated herein by reference to Exhibit 10.18(a) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended October 1, 2000, which was filed with the SEC on January 23, 2001).
- 10.58 Security Agreement, entered into as of December 12, 2000, between Starcraft Corporation, Starcraft Automotive Group, Inc., Kelly L. Rose and G. Ray Stults (incorporated herein by reference to Exhibit 10.18(b) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended October 1, 2000, which was filed with the SEC on January 23, 2001).
- 10.59 Real Property Mortgage (LaGrange County, Indiana) (Elkhart County, Indiana), dated as of December 12, 2000, by Starcraft Corporation, f/k/a Rokane Investment Group, Inc. in favor of Kelly L. Rose and G. Ray Stults (incorporated herein by reference to Exhibit 10.18(c) of the Annual Report on Form 10-K of Starcraft Corporation for the fiscal year ended October 1, 2000, which was filed with the SEC on January 23, 2001).
- 10.60 Agreement for Office Lease, dated February 15, 2003, by and between Gateway Property Development, LLC and Starcraft Corporation (incorporated herein by reference to Exhibit 10.2 of the Quarterly Report on Form 10-Q of Starcraft Corporation for the fiscal quarter ended March 30, 2003, which was filed with the SEC on May 8, 2003).

- 10.61* Employment Agreement, dated March 3, 2003, between the Registrant and Raymond W. Corbin (incorporated herein by reference to Exhibit 10.22 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2003, which was filed with the SEC on July 2, 2003).
- 10.62* Employment Agreement, effective May 1, 2006, by and between the Registrant and Bradley J. Timon (incorporated herein by reference to Exhibit 10.62 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.63* Employment Agreement, dated July 12, 2005, by and between the Registrant and Kenneth R. Lombardo (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on July 18, 2005).
- 10.64 Amended and Restated Credit Agreement, dated September 9, 2005, by and between Starcraft Corporation and Comerica Bank (incorporated herein by reference to Exhibit 10.1 of Registrant's Quarterly Report on Form 10-Q for the quarter ended October 31, 2005 that was filed with the SEC on December 12, 2005).
- 10.65 Second Amended and Restated Credit Agreement, dated May 19, 2006, between Tecstar Automotive Group, Inc. and Comerica Bank (incorporated herein by reference to Exhibit 10.65 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.66 Security Agreement (Securities Account), dated May 19, 2006, by and between Quantum Fuel Systems Technologies Worldwide, Inc. and Comerica and Comerica Bank (incorporated herein by reference to Exhibit 10.66 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.67 Security Agreement (Securities Account), dated May 19, 2006, by and between Quantum Fuel Systems Technologies Worldwide, Inc. and Comerica and Comerica Bank (incorporated herein by reference to Exhibit 10.67 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.68 Security Agreement, dated May 19, 2006, by and among Quantum Fuel Systems Technologies Worldwide, Inc., each of its Subsidiaries, and Comerica Bank (incorporated herein by reference to Exhibit 10.68 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.69 Guaranty, dated May 19, 2006, by and among Registrant, each of its subsidiaries, and Comerica Bank (incorporated herein by reference to Exhibit 10.62 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.70 Amended and Restated Credit Agreement, dated May 19, 2006, by and between Tecstar Manufacturing Canada and Comerica Bank (incorporated herein by reference to Exhibit 10.70 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.71 Security Agreement, dated May 19, 2006, by and between Tecstar Manufacturing Canada and Comerica Bank (incorporated herein by reference to Exhibit 10.71 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.72 Guarantee, dated May 19, 2006, by and between Tecstar Automotive Group, Inc. and Comerica Bank (incorporated herein by reference to Exhibit 10.72 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).

- 10.73 Third Amended Credit Agreement dated June 30, 2006 (Amendment No. 1 to Credit Agreement and Waiver) (incorporated herein by reference to Exhibit 10.73 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.74 Agreement, dated June 30, 2006, between Tecstar Automotive Group, Inc. and Comerica Bank (incorporated herein by reference to Exhibit 10.74 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.75 Assignment and Assumption of Option to Purchase Agreement, dated February 13, 2006, by and between Quantum Fuel Systems Technologies Worldwide, Inc. and Cartwright, LLC (incorporated herein by reference to Registrant's Current Report on Form 8-K filed on February 17, 2006).
- 10.76 Form of Securities Purchase Agreement executed in connection with Registrant's Private Placement of Securities dated June 29, 2006 (incorporated herein by reference to Exhibit 10.76 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.77 Form of Registrations Rights Agreement executed in connection with Registrant's Private Placement of Securities dated June 29, 2006 (incorporated herein by reference to Exhibit 10.77 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.78 Form of Common Stock Purchase Warrant issued in connection with Registrant's Private Placement of Securities dated June 29, 2006 (incorporated herein by reference to Exhibit 10.78 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006, which was filed with the SEC on July 28, 2006).
- 10.79 Form of Securities Purchase Agreement, dated October 27, 2006, by and among the Registrant and each of the Investors named therein (incorporated herein by reference to the Registrant's Current Report on Form 8-K filed on October 31, 2006).
- 10.80 Form of Common Stock Purchase Warrant "A" dated October 27, 2006 (incorporated herein by reference to the Registrant's Current Report on Form 8-K file don October 27, 2006).
- 10.81 Form of Common Stock Purchase Warrant "B" dated October 27, 2006 (incorporated herein by reference to the Registrant's Current Report on Form 8-K file don October 27, 2006).
- 10.82 Form of Additional Warrant dated October 27, 2006 (incorporated herein by reference to the Registrant's Current Report on Form 8-K file don October 27, 2006).
- 10.83 Form of Registrant Rights Agreement dated October 27, 2006 (incorporated herein by reference to the Registrant's Current Report on Form 8-K file dated October 27, 2006).
- 10.84 Credit Agreement dated January 31, 2007 (incorporated herein by reference to the Registrant's Current Report on Form 8-K filed on February 2, 2007).
- 10.85 Term Note dated January 31, 2007 (incorporated herein by reference to Exhibit 10.4 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.86 Revolving Credit Note dated January 31, 2007 (incorporated herein by reference to Exhibit 10.5 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.87 Subsidiary Guaranty of Credit Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.88 Security Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.7 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).

- 10.89 Pledge Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.8 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.90 Mortgage dated January 31, 2007 (incorporated herein by reference to Exhibit 10.9 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.91 Amendment to Subordinated Convertible Promissory Note Purchase Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.10 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.92 Amended and Restated Subordinated Convertible Promissory Notes dated January 31, 2007 (incorporated herein by reference to Exhibit 10.11 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.93 Quantum Guaranty of Amended and Restated Subordinated Promissory Notes dated January 31, 2007 (incorporated herein by reference to Exhibit 10.12 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.94 Security Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.13 of the Registrant's Quarterly Report of Form 10-Q filed on March 12, 2007).
- 10.95 Separation Agreement dated March 27, 2007 (incorporated herein by reference to Registrant's Current Report on Form 8-K filed on March 30, 2007).
- 10.96 Lease Termination Agreement dated April 4, 2007 (incorporated herein by reference to Registrant's Current Report on Form 8-K filed on April 10, 2007).
- 10.97 Guaranty dated April 4, 2007 (incorporated herein by reference to Registrant's Current Report on Form 8-K filed on April 10, 2007).
- 10.98 Promissory Note dated April 4, 2007 (incorporated herein by reference to Registrant's Current Report on Form 8-K filed on April 10, 2007).
- 10.99 Binding Letter of Intent dated May 11, 2007 (incorporated herein by reference to Registrant's Current Report on Form 8-K filed on May 16, 2007).
- 10.100 Form of Security Purchase Agreement, dated June 22, 2007, between the Registrant and each of the investors named in exhibit 99.1 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).
- 10.101 Form of Registration Rights Agreement, dated June 22, 2007, between the Registrant and each of the investors named in exhibit 99.1 (incorporated herein by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).
- 10.102 Form of Common Stock Purchase Warrant A, dated June 22, 2007, issued by the Registrant to each of the investors named in exhibit 99.1 (incorporated herein by reference to Exhibit 10.3 of Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).
- 10.103 Settlement Agreement, dated June 22, 2007, between the Registrant, and each of the investors named in exhibit 99.2 (incorporated herein by reference to Exhibit 10.4 of Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).
- 10.104 Form of Common Stock Purchase Warrant B, dated June 22, 2007, issued by the Registrant to each of the investors named in exhibit 99.2 (incorporated herein by reference to Exhibit 10.5 of Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).
- 10.105 Separation Agreement, dated July 10, 2007, between the Registrant, Tecstar Automotive Group, Inc. and Douglass C. Goad. (incorporated herein by reference to Exhibit 10.6 of Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2007, that was filed with the SEC on September 17, 2007).

- 10.106 Settlement Agreement, dated September 10, 2007, between the Registrant and Michael H. Schoeffler (incorporated herein by reference to Exhibit 10.7 of Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2007, that was filed with the SEC on September 17, 2007).
- 10.107 Lease Termination Agreement by and between Registrant and Cartwright Real Estate Holdings, LLC dated October 17, 2007 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed with the SEC on October 23, 2007).
- 10.108 First Amendment to Credit Agreement, dated September 13, 2007 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended October 31, 2007, that was filed with the SEC on December 17, 2007).
- 10.109* The Executive Nonqualified Excess Plan (Deferred Compensation Plan) of Quantum Fuel Systems Technologies Worldwide, Inc. dated November 1, 2007, Service Agreement (incorporated herein by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended October 31, 2007, that was filed with the SEC on December 17, 2007).
- 10.110* The Executive Nonqualified Excess Plan Adoption Agreement (incorporated herein by reference to Exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended October 31, 2007, that was filed with the SEC on December 17, 2007).
- 10.111* The Executive Nonqualified Excess Plan Trust Agreement (incorporated herein by reference to Exhibit 10.5 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended October 31, 2007, that was filed with the SEC on December 17, 2007).
- 10.112 Waiver and Agreement by and between Registrant and WB QT, LLC dated December 14, 2007 (incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended October 31, 2007, that was filed with the SEC on December 17, 2007).
- 10.113 Promissory Note, dated November 6, 2007, issued by Tecstar Automotive Group, Inc. to WB QT, LLC (incorporated herein by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.114 Second Amendment to Convertible Note Purchase Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.115 Second Amendment to Credit Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.116 First Amendment to Pledge Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.117 Guaranty dated November 6, 2007 (incorporated herein by reference to Exhibit 10.5 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.118 First Amendment to Security Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).

- 10.119 Agreement, dated January 4, 2008, between the Registrant and asola Advanced and Automotive Solar Systems GmbH (incorporated herein by reference to Exhibit 10.7 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.120 Strict Foreclosure Agreement, dated January 16, 2008, between Tecstar Automotive Group, Inc. and WB Automotive Holdings, Inc. (incorporated herein by reference to Exhibit 10.8 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.121 Release Agreement, dated January 16, 2008, between the Registrant and WB Automotive Holdings, Inc. (incorporated herein by reference to Exhibit 10.9 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.122 Third Amendment to Credit Agreement, dated January 16, 2008, between the Registrant and WB Automotive Holdings, Inc. LLC (incorporated herein by reference to Exhibit 99.5 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 10.123 Promissory Note (Term B Note), dated January 16, 2008, issued by the Registrant to WB QT, LLC (incorporated herein by reference to Exhibit 99.6 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 10.124 Security Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 99.7 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 10.125 Security Agreement, dated January 16, 2008, between Tecstar Automotive Group, Inc. and WB QT, LLC (incorporated herein by reference to Exhibit 10.13 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.126 Second Amendment to Security Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.14 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.127 Release and Cancellation of Indebtedness, dated March 10, 2008, between the Registrant, Tecstar Automotive Group, Inc. and WB Automotive Holdings, Inc. (incorporated herein by reference to Exhibit 10.15 of the Registrant's Quarterly Report on Form 10-Q for the fiscal period ended January 31, 2008, that was filed with the SEC on March 11, 2008).
- 10.128 Purchase of Contract Rights Agreement, dated November 7, 2007, between the Registrant and asola Advanced and Automotive Solar Systems GmbH (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on November 13, 2007).
- 10.129 Lease Agreement, dated December 11, 2007, between the Registrant and Braden Court Associates (incorporated herein by reference to the Registrant's Current Report on Form 8-K filed with SEC on December 17, 2007).
- 16.1 Letter re: Change in Certifying Accountants dated February 16, 2007 (incorporated herein by reference to the Registrant's Current Report on Form 8-K filed on February 16, 2007).
- 23.1 Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
- 23.2 Consent of McGladrey and Pullen, LLP, Independent Registered Public Accounting Firm.
- 31.1 Certification of the Chief Executive Officer of the Registrant pursuant to Exchange Act Rule 13a-14(a).
- 31.2 Certification of the Chief Financial Officer of the Registrant pursuant to Exchange Act Rule 13a-14(a).

- 32.1 Certification of the Chief Executive Officer of the Registrant furnished pursuant to Exchange Act Rule 13a-14(b) and 18 U.S.C. 1350.
- 32.2 Certification of the Chief Financial Officer of the Registrant furnished pursuant to Exchange Act Rule 13a-14(b) and 18 U.S.C. 1350.
- 99.1 Schedule of Investors for Security Purchase Agreement, Registration Rights Agreement and Common Stock Purchase Warrant A (incorporated herein by reference to Exhibit 99.1 of the Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).
- 99.2 Schedule of investors for Settlement Agreement and Common Stock Purchase Warrant B (incorporated herein by reference to Exhibit 99.2 of the Registrant's Current Report on Form 8-K that was filed with the SEC on June 26, 2007).

† Certain information in this exhibit has been omitted and filed separately with the SEC. Confidential treatment has been granted with respect to the omitted portions.

* The referenced exhibit is a compensatory contract, plan or arrangement.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Quantum Fuel Systems Technologies Worldwide, Inc.

We have audited the accompanying consolidated balance sheets of Quantum Fuel Systems Technologies Worldwide, Inc. and subsidiaries as of April 30, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years ended April 30, 2008 and 2007. Our audits also included the financial statement schedule listed in Item 15(a) for the years ended April 30, 2008 and 2007. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Quantum Fuel Systems Technologies Worldwide, Inc. and subsidiaries at April 30, 2008 and 2007, and the consolidated results of their operations and their cash flows for each of the two years in the period ended April 30, 2008, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the consolidated financial statements taken as a whole, present fairly in all material respects the information set forth therein for the years ended April 30, 2008 and 2007.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Quantum Fuel Systems Technologies Worldwide, Inc.'s internal control over financial reporting as of April 30, 2008, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated July 2, 2008 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG LLP

Orange County, California
July 2, 2008

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	April 30,	
	2007	2008
	(restated, see Note 1)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,526,312	\$ 6,023,715
Accounts receivable, net	3,144,412	9,664,751
Inventories, net	8,226,426	6,062,137
Prepays and other current assets	710,827	990,925
Assets of discontinued operations	41,851,270	—
Total current assets	56,459,247	22,741,528
Property and equipment, net	4,530,241	3,852,566
Deferred loan fees	540,188	343,711
Investment in affiliate	—	2,780,526
Intangible assets, net	8,899,465	7,020,606
Goodwill	30,400,000	30,400,000
Deposits and other assets	77,968	1,646,683
Assets of discontinued operations	66,636,261	—
Total assets	<u>\$ 167,543,370</u>	<u>\$ 68,785,620</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 2,916,272	\$ 3,364,580
Accrued payroll obligations	986,705	1,422,779
Deferred revenue	780,216	4,707,634
Accrued warranties	466,373	665,606
Obligation payable to affiliate	—	1,869,000
Other accrued liabilities	505,273	1,458,086
Current maturities of long-term debt	3,872,294	8,325,144
Obligations of discontinued operations	29,595,385	—
Total current liabilities	39,122,518	21,812,829
Long-term debt, net of current maturities	27,157,041	33,623,598
Obligations of discontinued operations	23,630,629	—
Commitments and contingencies		
Minority interest	103,608	—
Stockholders' equity:		
Preferred stock, \$.001 par value, 20,000,000 shares authorized; none issued and outstanding at April 30, 2007 and 2008	—	—
Series B common stock, \$.001 par value; 2,000,000 shares authorized; 999,969 issued and outstanding at April 30, 2007 and 2008	1,000	1,000
Common stock, \$.001 par value; 248,000,000 shares authorized; 65,052,399 issued and outstanding at April 30, 2007 and 77,972,399 issued and outstanding at April 30, 2008	65,052	77,972
Additional paid-in-capital	289,371,009	309,901,962
Accumulated deficit	(211,605,770)	(296,631,741)
Accumulated other comprehensive loss	(301,717)	—
Total stockholders' equity	77,529,574	13,349,193
Total liabilities and stockholders' equity	<u>\$ 167,543,370</u>	<u>\$ 68,785,620</u>

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended April 30,		
	2006	2007	2008
	(restated, see Note 1) †		
Revenue:			
Net product sales	\$ 8,830,371	\$ 10,662,721	\$ 11,856,277
Contract revenue	10,951,927	7,015,939	14,640,885
Total revenue	19,782,298	17,678,660	26,497,162
Costs and expenses:			
Cost of product sales	9,308,264	9,483,918	10,015,622
Research and development	17,774,677	14,146,098	17,499,221
Selling, general and administrative	10,333,235	15,810,938	16,077,527
Amortization of intangibles	1,660,980	1,674,190	1,675,835
Total costs and expenses	39,077,156	41,115,144	45,268,205
Operating loss	(19,294,858)	(23,436,484)	(18,771,043)
Interest income (expense), net	893,938	(15,781)	(2,218,035)
Minority interest in losses of subsidiary	55,624	811,262	1,718,813
Equity in earnings of affiliate	—	—	335,500
Other income (expense), net	1,000	5,902	(27,443)
Loss from continuing operations before income taxes	(18,344,296)	(22,635,101)	(18,962,208)
Income tax expense	(1,600)	(1,600)	(1,600)
Net loss from continuing operations	(18,345,896)	(22,636,701)	(18,963,808)
Loss from discontinued operations, net of tax effects	(17,187,159)	(117,892,596)	(66,062,163)
Net loss	<u>\$(35,533,055)</u>	<u>\$(140,529,297)</u>	<u>\$(85,025,971)</u>
Per share data—basic and diluted:			
Loss from continuing operations	\$ (0.35)	\$ (0.37)	\$ (0.25)
Loss from discontinued operations	(0.32)	(1.91)	(0.86)
Net loss	<u>\$ (0.67)</u>	<u>\$ (2.28)</u>	<u>\$ (1.11)</u>
Number of shares used in per share calculation—basic and diluted	<u>53,283,956</u>	<u>61,760,458</u>	<u>76,791,382</u>

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

foregoing release, Quantum (i) caused Tecstar Automotive Group to enter into and complete the transactions described above, (ii) paid \$1.0 million to WB Automotive and (iii) agreed to assume \$0.7 million in unpaid interest owed under the Tecstar Convertible Notes. The lender subsequently cancelled the Tecstar Term Note in a separate agreement.

As a result of the transactions described above that resulted in the disposal of the Tecstar businesses, the historical activities and balances of the Tecstar Automotive Group business segment are reported as discontinued operations in the accompanying consolidated balance sheets, consolidated statements of operations and consolidated statements of cash flows for all periods presented in accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets."

The disposal of the Tecstar businesses resulted in a gain of \$8.6 million included in discontinued operations, net of taxes, for the year ended April 30, 2008 due in part from concessions granted by the lender in restructuring the debt obligations. Prior to the restructuring, the Company had recorded significant losses for the Tecstar Automotive Group business segment attributable to the write-down of its long-lived assets and negative operating results reported in previous quarters.

The historical operating results of the Tecstar Automotive Group business segment through the date of disposition on January 16, 2008, classified as discontinued operations, were as follows:

	Year Ended April 30,		
	2006	2007	2008
Revenue:			
Net product sales	\$164,032,146	\$ 122,125,703	\$ 53,738,861
Contract revenue	8,867,749	9,651,031	5,023,412
Total revenue	172,899,895	131,776,734	58,762,273
Costs and expenses:			
Cost of product sales	154,138,652	125,556,969	54,989,022
Research and development	8,084,994	9,842,351	5,450,843
Selling, general and administrative	23,562,468	27,921,928	15,204,456
Amortization of intangibles	2,420,928	2,862,286	698,570
Restructuring charge	—	2,326,868	—
Impairment of long-lived assets(1)	—	72,317,506	58,900,000
Total costs and expenses	188,207,042	240,827,908	135,242,891
Operating loss	(15,307,147)	(109,051,174)	(76,480,618)
Interest expense, net(5)	(2,871,684)	(4,224,076)	(3,171,291)
Gain on disposal of subsidiary	—	544,468	—
Gain on disposal of business segment(4)	—	—	8,641,447
Loss on early extinguishment of debt(2)	—	(6,300,000)	—
Minority interest in losses of subsidiaries	350,071	199,929	—
Other income (expense), net	(15,185)	80,649	5,827
Loss from discontinued operations before taxes	(17,843,945)	(118,750,204)	(71,004,635)
Income tax benefit(3)	656,786	857,608	4,942,472
Loss from discontinued operations	<u>\$(17,187,159)</u>	<u>\$(117,892,596)</u>	<u>\$(66,062,163)</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended April 30,		
	2006	2007	2008
	(restated, see Note 1)		
Revenue:			
Net product sales	\$ 8,830,371	\$ 10,662,721	\$ 11,856,277
Contract revenue	10,951,927	7,015,939	14,640,885
Total revenue	19,782,298	17,678,660	26,497,162
Costs and expenses:			
Cost of product sales	9,308,264	9,483,918	10,015,622
Research and development	17,774,677	14,146,098	17,499,221
Selling, general and administrative	10,333,235	15,810,938	16,077,527
Amortization of intangibles	1,660,980	1,674,190	1,675,835
Total costs and expenses	39,077,156	41,115,144	45,268,205
Operating loss	(19,294,858)	(23,436,484)	(18,771,043)
Interest income (expense), net	893,938	(15,781)	(2,218,035)
Minority interest in losses of subsidiary	55,624	811,262	1,718,813
Equity in earnings of affiliate	—	—	335,500
Other income (expense), net	1,000	5,902	(27,443)
Loss from continuing operations before income taxes	(18,344,296)	(22,635,101)	(18,962,208)
Income tax expense	(1,600)	(1,600)	(1,600)
Net loss from continuing operations	(18,345,896)	(22,636,701)	(18,963,808)
Loss from discontinued operations, net of tax effects	(17,187,159)	(117,892,596)	(66,062,163)
Net loss	<u>\$(35,533,055)</u>	<u>\$(140,529,297)</u>	<u>\$(85,025,971)</u>
Per share data—basic and diluted:			
Loss from continuing operations	\$ (0.35)	\$ (0.37)	\$ (0.25)
Loss from discontinued operations	(0.32)	(1.91)	(0.86)
Net loss	<u>\$ (0.67)</u>	<u>\$ (2.28)</u>	<u>\$ (1.11)</u>
Number of shares used in per share calculation—basic and diluted	<u>53,283,956</u>	<u>61,760,458</u>	<u>76,791,382</u>

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Series B Common Stock		Common Stock		Additional Paid-In- Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (loss)	Total Stockholders' Equity	Comprehensive Income (loss)
	Shares	Amount	Shares	Amount					
Balance at April 30, 2005	999,969	\$1,000	51,735,257	\$51,735	\$254,680,716	\$ (35,543,418)	\$ 18,000	\$ 219,208,033	
Issuance of restricted stock	—	—	91,806	92	(92)	—	—	—	
Share-based compensation recognized on restricted stock award	—	—	—	—	108,399	—	—	108,399	
Issuance of common stock in connection with acquisition	—	—	1,815,000	1,815	7,563,095	—	—	7,564,910	
Stock option exercises	—	—	132,050	132	451,482	—	—	451,614	
Foreign currency translation	—	—	—	—	—	—	(207,033)	(207,033)	\$ (207,033)
Net loss	—	—	—	—	—	(35,533,055)	—	(35,533,055)	\$ (35,533,055)
Comprehensive loss	—	—	—	—	—	—	—	—	\$ (35,740,088)
Balance at April 30, 2006	999,969	\$1,000	53,774,113	\$53,774	\$262,803,600	\$ (71,076,473)	\$ (189,033)	\$ 191,592,868	
Share-based compensation on stock option and restricted stock awards	—	—	—	—	4,455,059	—	—	4,455,059	
Issuance of common stock to private investors	—	—	10,500,089	10,500	20,820,329	—	—	20,830,829	
Stock option exercises	—	—	10,400	10	33,602	—	—	33,612	
Warrant exercises	—	—	767,797	768	1,258,419	—	—	1,259,187	
Foreign currency translation	—	—	—	—	—	—	(112,684)	(112,684)	\$ (112,684)
Net loss	—	—	—	—	—	(140,529,297)	—	(140,529,297)	\$ (140,529,297)
Comprehensive loss	—	—	—	—	—	—	—	—	\$ (140,641,981)
Balance at April 30, 2007	999,969	\$1,000	65,052,399	\$65,052	\$289,371,009	\$ (211,605,770)	\$ (301,717)	\$ 77,529,574	
Share-based compensation on stock option and restricted stock awards	—	—	420,000	420	2,956,382	—	—	2,956,802	
Issuance of common stock to private investors	—	—	12,500,000	12,500	17,574,571	—	—	17,587,071	
Foreign currency translation	—	—	—	—	—	—	98,358	98,358	\$ 98,358
Disposal and consolidation of subsidiaries	—	—	—	—	—	—	203,359	203,359	\$ 203,359
Net loss	—	—	—	—	—	(85,025,971)	—	(85,025,971)	\$ (85,025,971)
Comprehensive loss	—	—	—	—	—	—	—	—	\$ (84,724,254)
Balance at April 30, 2008	999,969	\$1,000	77,972,399	\$77,972	\$309,901,962	\$ (296,631,741)	\$ —	\$ 13,349,193	

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended April 30,		
	2006	2007	2008
	(restated, see Note 1)		
Cash flows from operating activities:			
Net loss	\$(35,533,055)	\$(140,529,297)	\$(85,025,971)
Add: loss from discontinued operations, net of income tax	17,187,159	117,892,596	66,062,163
Loss from continuing operations	(18,345,896)	(22,636,701)	(18,963,808)
Adjustments to reconcile loss from continuing operations to net cash used in operating activities:			
Depreciation on property and equipment and amortization of intangibles	3,740,333	3,922,452	3,798,138
Share-based compensation charges	108,399	3,541,672	2,858,620
Minority interest in losses of subsidiaries	(55,624)	(811,262)	(1,718,813)
Interest on long term debt obligations	—	58,034	768,419
Equity in earnings of affiliate	—	—	(335,500)
Other non-cash items	—	(15,159)	374,151
Changes in operating assets and liabilities:			
Accounts receivable	(1,140,334)	3,758,079	(6,608,360)
Inventories	(399,092)	(1,493,262)	2,164,289
Deposits and other assets	(227,595)	(64,966)	(1,961,023)
Accounts payable	501,548	(958,860)	858,456
Deferred revenue	—	(15,821)	3,927,418
Other accrued liabilities	381,695	253,352	941,756
Net cash used in continuing operating activities	(15,436,566)	(14,462,442)	(13,896,257)
Net cash used in discontinued operating activities	(21,392,688)	(22,924,488)	(12,624,926)
Net cash used in operating activities	(36,829,254)	(37,386,930)	(26,521,183)
Cash flows from investing activities:			
Purchases of property and equipment	(1,345,109)	(208,334)	(1,630,914)
Proceeds from sale of property and equipment	—	15,160	9,698
Investment in discontinued operations	(9,231,692)	(34,779,440)	(9,643,934)
Investment in affiliates	—	—	(573,848)
Purchases of marketable securities	(17,754,554)	(6,138,584)	—
Proceeds from sales and maturities of marketable securities	38,857,093	21,138,584	—
Net cash provided by (used in) continuing investing activities	10,525,738	(19,972,614)	(11,838,998)
Net cash provided by (used in) discontinued investing activities	(1,213,305)	29,652,908	6,362,908
Net cash provided by (used in) investing activities	9,312,433	9,680,294	(5,476,090)
Cash flows from financing activities:			
Borrowings on notes and other obligations	—	10,022,720	10,181,906
Payments on notes and other obligations	—	—	(14,683)
Loan origination fee payments	—	(598,222)	—
Proceeds from issuance of common stock, net of transaction fees	—	20,830,062	17,587,072
Proceeds from exercises of stock options and warrants	451,614	1,293,566	—
Contributions from minority interest holders	87,544	645,998	1,481,810
Net cash provided by continuing financing activities	539,158	32,194,124	29,236,105
Net cash provided by (used in) discontinued financing activities	23,887,520	(9,574,652)	4,757,014
Net cash provided by financing activities	24,426,678	22,619,472	33,993,119
Effect of exchange rate changes on cash from continuing operations	7,552	(2,162)	(3,447)
Effect of exchange rate changes on cash from discontinued operations	358,513	95,702	12,330
	366,065	93,540	8,883
Net increase (decrease) in cash and cash equivalents	(2,724,078)	(4,993,624)	2,004,729
Cash and cash equivalents at beginning of period	11,736,688	9,012,610	4,018,986
Cash and cash equivalents at end of period	\$ 9,012,610	\$ 4,018,986	\$ 6,023,715
Cash and cash equivalents from continuing operations	\$ 4,769,406	\$ 2,526,312	\$ 6,023,715
Cash and cash equivalents from discontinued operations	\$ 4,243,204	\$ 1,492,674	\$ —

Continued on following page

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)

	Year Ended April 30,		
	2006	2007	2008
	(restated, see Note 1)		
Supplemental schedule of non-cash investing and financing activities of continuing operations:			
Formation of Advanced Lithium Power :			
Fair value of tangible assets contributed	\$ 40,387	\$ —	\$ —
Fair value of intangibles contributed	226,998	—	—
Fair value of liabilities assumed	(40,387)	—	—
Minority interest	(314,542)	—	—
Deconsolidation of Advanced Lithium Power:			
Carrying value of assets deconsolidated	—	—	(628,769)
Carrying value of liabilities and minority interests deconsolidated	—	—	582,161
Carrying value of accumulated other comprehensive loss deconsolidated	—	—	46,608
Investment in Asola:			
Increase in investment in affiliate	—	—	1,869,000
Increase in obligations payable to affiliate	—	—	(1,869,000)
Supplemental disclosure information of continuing operations:			
Cash paid during the year for:			
Interest	\$ —	\$(407,544)	\$(1,367,217)
Income taxes	(1,600)	(1,600)	(1,600)

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

April 30, 2008

1. Background and Basis of Presentation

Background

Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries (collectively referred to as "Quantum" or the "Company") develops and produces alternative fuel propulsion, storage and systems, energy storage technologies, and alternative fuel vehicles. The Company's portfolio of technologies includes electronic controls, hybrid electric drive systems, hydrogen storage and metering systems, and other alternative fuel technologies that enable fuel efficient, low emission hybrid, plug-in electric hybrid, fuel cell and other alternative fuel vehicles. The Company's powertrain engineering, system integration, and assembly capabilities provide fast-to-market solutions to support the production of hybrid and plug-in hybrid, hydrogen-powered hybrid, fuel cell, and other alternative fuel vehicles, as well as modular, transportable hydrogen refueling stations.

The Company was incorporated in the state of Delaware in October 2000 as Quantum Fuel Systems Technologies Worldwide, Inc., a wholly-owned subsidiary of IMPCO Technologies, Inc (IMPCO). The Company spun off from IMPCO and became a separate company on July 23, 2002 (the "Spin Off").

On January 16, 2008, the Company completed a series of transactions that resulted in the disposal of substantially all the assets of the Tecstar Automotive Group business segment. Prior to the disposal, the Tecstar Automotive Group business segment comprised all of the business activities acquired via the acquisition of Tecstar Automotive Group, Inc. ("Tecstar Automotive Group"), formerly known as Starcraft Corporation, that occurred on March 3, 2005 and subsequent specialty vehicle business acquisitions, including the February 8, 2006 acquisition of Regency Conversions, Inc. (Regency). See Notes 3 and 11.

On January 4, 2008, the Company acquired a 24.9% ownership interest in Asola Advanced and Automotive Solar Systems GmbH (Asola), a solar module manufacturer located in Erfurt, Germany. See Note 5.

On August 7, 2007, the Company obtained a 62.0% interest in Fisker Automotive, Inc. (Fisker Automotive), a joint venture with Fisker Coachbuild, LLC. As of April 30, 2008, the Company's ownership interest in Fisker Automotive was 30.7% as a result of financing activities completed by Fisker Automotive. See Note 5.

On March 24, 2006, the Company obtained a 35.5% ownership interest in Vancouver, British Columbia-based Advanced Lithium Power Inc. (ALP). ALP is developing state-of-the-art lithium ion battery and control systems that control state-of-charge and provide for thermal management, resulting in high-performance energy storage. As of April 30, 2008, the Company's ownership interest in ALP was 15.4% as a result of financing activities completed by ALP. See Note 5.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles.

The accounts of ALP were included in the consolidated financial statements from the date of the Company's initial ownership interest until April 10, 2008 due to the nature of the controlling voting interest the Company had secured in ALP during this period. Subsequent to this period and as a result of additional financing obtained by ALP that diluted the Company's equity stake and voting interests, the Company no longer maintains in control of a majority of the voting interests in ALP and deconsolidated ALP. However, since the Company still has the ability to exert significant influence on ALP due to its board representation and its voting interests, the Company now accounts for its ownership interest in ALP under the equity method of accounting.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Although Tecstar Automotive Group remains a wholly owned subsidiary of the Company; it ceased all operations effective with the disposal of its assets and now consists of an inactive shell company.

The consolidated balance sheet at April 30, 2007 has been derived from the audited financial statements of the Company at that date as adjusted for changes in classification of the assets and liabilities of the discontinued operations of the Tecstar Automotive Group business segment. Additionally, the historical activities of the Tecstar Automotive Group business segment are classified as discontinued operations in the accompanying consolidated statements of operations for all periods presented.

All significant intercompany accounts and transactions have been eliminated in consolidation.

Capital Resources

On June 29, 2006, the Company completed a private placement transaction which yielded proceeds of \$12.5 million from the sale of 4.4 million shares of its common stock at a price of \$2.84 per share. On October 27, 2006, the Company completed a private placement transaction which yielded proceeds of \$10.0 million from the sale of 6.1 million shares of its common stock at a price of \$1.64 per share. The investors also received warrants in connection with the private placement transactions. In January and February 2007, the Company received \$1.3 million from the exercise of a portion of the warrants issued in connection with the private placement that closed on October 27, 2006.

In December 2006, the Company used approximately \$15.0 million of proceeds from the sale of its marketable securities portfolio and other cash equivalents to reduce the outstanding borrowings under credit facilities with a commercial bank. On January 31, 2007 the Company secured a \$30.6 million credit facility with an asset-based lender and used \$9.6 million of proceeds from the new facility to repay the remaining principal and accrued interest owed under commercial bank credit facilities. This facility has been modified and restructured on certain dates, most notably in January 2008 in connection with the disposal of the Tecstar Automotive Group and in May 2008 in connection with incremental borrowings and a commitment secured by the Company from its lender that are discussed below. Prior to the restructure in January 2008, the amended credit facility included a revolving line of credit with maximum availability of \$23.6 million and a \$10.0 million term note (Term Note A).

On June 22, 2007, the Company completed a private placement transaction which yielded proceeds of \$18.75 million from the sale of 12.5 million shares of its common stock at a price of \$1.50 per share. The investors also received warrants to purchase 15.0 million shares of the Company's common stock at an exercise price of \$2.09 in connection with the transaction that expire in December 2014. The transaction triggered a reset of the conversion price of the senior subordinated convertible note obligations from \$2.36 to \$1.35 per share and a reset of the exercise price of the "A" warrants issued in the private placement that the Company closed in October 2006 from \$2.36 to \$1.50 per share.

On January 16, 2008, the Company transferred substantially all the assets of the Tecstar Automotive Group business segment to an affiliate of its lender in satisfaction of Tecstar Automotive Group's debt obligations under the senior subordinated convertible notes issued on July 12, 2004 (Tecstar Convertible Notes). In connection therewith, the Company's outstanding debt instruments payable to the lender were restructured in a manner that resulted in the elimination or release of \$20.5 million of debt and provided the Company with incremental net borrowing capacity of \$1.9 million. The elimination or release of debt included approximately \$15.5 million secured by Tecstar Automotive Group's assets under the revolving line of credit and a \$5.0 million term note provided by the lender to Tecstar Automotive Group on November 6, 2007 (Tecstar Term Note). The revolving

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

credit facility, with a remaining availability of approximately \$8.1 million after the transfer of the Tecstar business assets to the lender, was terminated and replaced with a new \$10.0 million term note (Term Note B).

The modified and restructured debt instruments have outstanding obligations of \$41.6 million as of April 30, 2008. These consist of a \$21.6 million convertible note (\$16.2 million face amount, \$4.9 million unamortized premium and \$0.5 million accrued interest) issued on January 16, 2008 that matures on July 1, 2009 (Convertible Note); a \$10.0 million term note issued on January 31, 2007 that matures on January 31, 2010 (Term Note A) and a \$10.0 million term note issued on January 16, 2008 that matures on January 16, 2015 (Term Note B). These debt instruments are more fully described at Note 11.

On May 30, 2008, the Company received \$7.5 million in proceeds under a new term note that matures on August 31, 2009 (Term Note C). The Company also obtained a \$10.0 million unconditional commitment (the "May 2008 Commitment") from its lender that allows the Company to draw on the commitment at its option and also allows the lender to fund the commitment at the lender's option under certain defined structures. The option for either party expires on August 31, 2009. The May 2008 Commitment replaced a \$5.0 million commitment obtained in July 2007 with the lender that was unexercised and originally scheduled to expire on August 1, 2008. To date, neither the Company nor the lender have exercised the option under the May 2008 Commitment. The Term Note C and the May 2008 Commitment are more fully described at Note 11.

Liquidity

The Company has incurred recurring operating losses and negative cash flows from operating activities. Although the Company was able to dispose of the Tecstar Automotive Group in fiscal 2008, it generated negative cash flows from its continuing operating activities of \$13.9 million and had net working capital of \$0.9 million as of and for the year ended April 30, 2008. From its inception through April 30, 2008, the Company has funded its operations and strategic investments primarily with proceeds from public and private offerings of its common stock and borrowings with financial institutions and its asset-based lender. The Company's historical operating results, capital resources and financial position in combination with current projections and estimates were considered in management's plan and intentions to fund operations over the next twelve months. The Company's current operating plan anticipates increased revenues and improved profit margins. The operating plan also requires that the Company will either have to draw down on some or all of the unconditional commitment from its lender or alternatively raise capital through public or private offerings of equity or debt securities. In addition, the Company will need to increase revenues and improve profit margins for the business to be sustainable over the long term.

The Company's principal sources of liquidity amount to \$23.5 million, consisting of \$6.0 million of cash and cash equivalents at April 30, 2008, \$7.5 million of proceeds received on Term Note C on May 30, 2008 and \$10.0 million of available committed funding from its lender that the Company secured on May 30, 2008. Based on current projections and estimates, the Company believes that its working capital and principal sources of liquidity are sufficient to fund its operating activities and obligations through at least April 30, 2009. The Company also believes additional financing, if required, can be adequately sourced; however, it cannot provide any assurances that it will be able to secure additional funding on terms acceptable to the Company, if at all. An inability of the Company to achieve its current operating plan or raise capital to cover any shortfall would have a material adverse affect on its ability to meet its obligations as they become due without substantial disposition of assets or other similar actions outside the ordinary course of business.

2. Summary of Significant Accounting Policies

Use of Estimates in the Preparation of Consolidated Financial Statements

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. These estimates include assessing the levels of liquidity needs of the Company over the next twelve months, collectibility of accounts receivable, estimates of contract costs and percentage of completion, the use and recoverability of inventory, the carrying amounts and fair value of long-lived assets and goodwill, including estimates of future cash flows and market valuations associated with asset impairment evaluations, the fair value of debt instruments, the realization of deferred taxes, useful lives for depreciation/ amortization periods of tangible and intangible assets and provisions for warranty claims, among others. The markets for the Company's products are characterized by competition, technological development and new product introduction, all of which could impact the future realizability of the Company's assets. Actual results could differ from those estimates.

Revenue Recognition

The Company generally manufactures products based on specific orders from customers. Revenue is recognized on product sales upon shipment or when the earnings process is complete and collectibility is reasonably assured. For product sales in connection with certain second stage manufacturing, consisting of assembly and integration of fuel systems and specialty equipment products into motor vehicle applications, revenue is recognized upon completion of the integration activities when the vehicles are ready to be delivered to our customers in accordance with contract terms. The Company includes the costs of shipping and handling, when incurred, in cost of goods sold.

In certain circumstances, customers pay one price for multiple products and services. For arrangements with multiple deliverables, revenue is recognized upon the delivery of the separate units in accordance with Emerging Issues Task Force (EITF) 00-21, "Revenue Arrangements with Multiple Deliverables." Consideration from multiple element arrangements is allocated among the separate elements based on their relative fair values.

Contract revenue for customer funded research and development is principally recognized by the percentage of completion method in accordance with Statement of Position No. 81-1, "Accounting for Performance of Construction-Type and Certain Production-Type Contracts." Generally, the Company estimates percentage complete by determining cost incurred to date as a percentage of total estimated cost at completion. For certain other contracts, percentage complete is determined by measuring progress towards contract deliverables if it is determined that this methodology more closely tracks the realization of the earnings process. For contracts measured under the estimated cost approach, the Company believes it can generally make dependable estimates of the revenue and costs applicable to various stages of a contract. Recognized revenue and profit are subject to revisions as the contract progresses to completion. The Company's estimates of contract costs are based on expectations of engineering development time and materials and other support costs. These estimates can change based on unforeseen technology and integration issues, but known risk factors and contract challenges are generally allowed for in the initial scope and cost estimate of the program. Revisions in profit estimates are charged to income in the period in which the facts that give rise to the revision become known. In certain circumstances, specific contracts in which the Company cannot reliably make estimates of total revenues and expenses are accounted for under the completed contract method. Under the completed contract method, all revenue and expenses attributable to the specific contract are deferred until the end of the project.

Research and Development Costs

Research and development costs are charged to expense as incurred. Equipment used in research and development with alternative future uses is capitalized and only the current period depreciation is charged to research and development.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Cash and Cash Equivalents

All highly liquid investments with original maturities of three months or less when purchased are considered to be cash equivalents.

Accounts receivable

The Company sells to customers using credit terms customary in its industry. Credit is extended to customers based on an evaluation of the customer's financial condition, and when credit is extended, collateral is generally not required. Interest is not normally charged on receivables. Management establishes an allowance for potential losses on its accounts receivable based on historical loss experience and current economic conditions. Accounts receivable are charged off to the allowance when management determines the account is uncollectible.

Marketable Securities

The Company accounts for its investments in accordance with Statement of Financial Accounting Standards (SFAS) No. 115, "Accounting for Certain Investments in Debt and Equity Securities." SFAS No. 115 requires that all applicable investments be classified as trading securities, available-for-sale securities or held-to-maturity securities. Marketable securities are classified as held-to-maturity when the Company has the positive intent and ability to hold the securities to maturity. Management classified all of its marketable securities as held-to-maturity through the date of the liquidation of its portfolio in December 2006 in connection with the pay down of certain debt obligations. Held-to-maturity securities are stated at amortized cost. The amortized cost of securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income.

Financial Instruments and Concentration of Credit Risk

The estimated fair values of cash equivalents, accounts receivable, accounts payable, and accrued expenses approximate their carrying values because of the short-term maturity of these instruments. Long-term debt, as summarized in Note 11, approximates fair values consistent with the nature of the debt instrument involved except for Term Note B. The fair value of Term Note B is primarily dependent upon the current share price of the Company's common stock due to the upward adjustment clause in the credit facility. As of April 30, 2008, the carrying value of Term Note B obligation is \$10.0 million and the approximate fair value is \$19.8 million based on the Company's closing share price on that date of \$1.32.

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of trade receivables and long-term debt. The Company conducts a major portion of its business with a limited number of customers. For the past three years and for the foreseeable future, General Motors (including subsidiaries of General Motors) represent a significant portion of the Company's sales and outstanding accounts receivable. An affiliate, Fisker Automotive, is also expected to represent a significant portion of the Company's sales and outstanding accounts receivable for the foreseeable future. Credit is extended based upon an evaluation of each customer's financial condition, with terms consistent with those present throughout the industry. Typically, the Company does not require collateral from customers.

The Company may use derivative financial instruments for the purpose of reducing its exposure to adverse fluctuations in interest and foreign exchange rates. While these hedging instruments could be subject to fluctuations in value, such fluctuations are generally offset by the value of the underlying exposures being hedged. The Company has not had any derivative financial instruments for these purposes for any of the periods reported. The Company is not a party to leveraged derivatives and does not hold or issue financial instruments for speculative purposes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Inventories

Inventories are valued at the lower of cost or market. Cost is determined by the first-in, first-out (FIFO) method for all inventories. Market is determined by replacement cost for raw materials and parts and net realizable value for work-in-process and finished goods. The Company's business is subject to the risk of technological and design changes. The Company provides for obsolete or slow-moving inventory based on management's analysis of inventory levels and future sales forecasts at the end of each accounting period.

Property and Equipment

Property and equipment are stated at historical cost less accumulated depreciation. Depreciation is computed principally by the straight-line method over the estimated useful lives of the assets. The Company is depreciating tooling, dies and molds over 5 years; plant machinery and equipment over 7 years; information systems, office equipment, furniture and fixtures over periods of 3 to 7 years; and automobiles and trucks over 5 years. Amortization of leasehold improvements and equipment financed under borrowing facilities is provided using the straight-line method over the shorter of the assets' estimated useful lives or the lease terms.

Major renewals and improvements are capitalized and minor replacements, maintenance and repairs are charged to current operations as incurred. Upon retirement or disposal of assets, the cost and related accumulated depreciation are removed from the balance sheets and any gain or loss is reflected in the statements of operations.

Goodwill and Other Intangible Assets

Acquisitions meeting business combinations criteria often give rise to goodwill. The Company utilizes the services of independent valuation consultants to assist in allocating purchase price to acquired assets and liabilities assumed in connection with acquisition activities.

Goodwill represents the excess of the purchase price over the fair value of net assets acquired in the acquisition of Tecstar Automotive Group that was allocable to the Quantum Fuel Systems business segment. In accordance with SFAS No. 142, goodwill is not amortized and is assessed annually for impairment (as of February 1) or whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable.

The issuance of shares related to the Company's strategic alliance with General Motors has been recorded as an intangible asset at the estimated fair market value on the dates of issuance. The Company is amortizing the intangible asset, subject to periodic evaluations for impairment, over the ten-year term of the Corporate Alliance Agreement with General Motors (see Note 4 and Note 10).

Warranty Costs

The Company follows the policy of accruing an estimated liability for warranties at the time the warranted products are sold. Warranty is provided for terms similar to those offered by the OEM to its customers and generally range from two to three years. Estimates are based, in part, on historical experience.

Impairment of Long-Lived Assets

In accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets," impairment losses are recorded on long-lived assets used in operations when an indicator of impairment (significant decrease in market value of an asset, significant change in extent or manner in which the asset is used or significant physical change to the asset) is present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Income Taxes

The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred tax assets and liabilities are determined based on the differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The Company has deferred tax assets primarily consisting of net operating loss carry forwards that were available to offset future taxable income. In accordance with SFAS No. 109, "Accounting for Income Taxes," the Company has established a full valuation allowance for its deferred tax assets since based on current evidence, it is unlikely that the assets will be fully realized.

The Company adopted Financial Accounting Standards Board (FASB) Interpretation No. 48 "Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement No. 109," (FIN 48) on May 1, 2007. FIN 48 clarifies the accounting and reporting for uncertainties in income tax law. This Interpretation prescribes a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns. The Interpretation requires that the tax effects of a position be recognized only if it is "more-likely-than-not" to be sustained by the taxing authority as of the reporting date. If the tax position is not considered "more-likely-than-not" to be sustained, then no benefits of the position are to be recognized. There was no cumulative effect of adopting FIN 48 on the May 1, 2007 retained earnings balance. At May 1, 2007 and April 30, 2008 the Company has no unrecognized tax benefits. Interest and penalties related to income tax liabilities will be included in pre-tax income. At April 30, 2008, the Company's tax returns related to fiscal years ended April 30, 2004 through April 30, 2008 remain open to examination by the tax authorities. However, the Company has consolidated or acquired net operating losses beginning in the tax year ended September 27, 1998 that would cause the statute of limitations to remain open for the year in which the net operating loss was incurred.

Share-Based Compensation

In December 2004, the FASB issued SFAS No. 123 (revised 2004), "Share-Based Payment," (SFAS 123R). This Statement requires companies to expense the estimated fair value of stock options and similar equity instruments issued to employees over the requisite vesting period. SFAS 123R eliminates the alternative to use the intrinsic method of accounting provided for in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," (APB 25), which generally results in no compensation expense recorded in the financial statements related to the grant of stock options to employees if certain conditions were met.

Effective at the beginning of fiscal 2007, the Company adopted SFAS 123R using the modified prospective method, which requires the Company to record compensation expense for all awards granted, modified, repurchased, or cancelled after the date of adoption, and for the unvested portion of previously granted awards that remain outstanding at the date of adoption. The Company did not incur a charge upon the adoption nor has the prior period amounts presented herein been restated to reflect the adoption of SFAS 123R.

The Company uses the Black-Scholes option-pricing formula and records compensation expense on a straight-line amortization basis over the requisite vesting period of the option grants or other stock-based awards. Under APB 25, the Company was not required to estimate forfeitures in the expense calculation for the stock compensation pro-forma footnote disclosure; however, SFAS 123R requires an estimate of forfeitures and upon adoption the Company changed its methodology to include an estimate of forfeitures. The adoption of SFAS 123R had no effect on cash flows from operating or financing activities.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table illustrates the effect on net loss and loss per share if the Company had applied the fair value recognition provisions of SFAS 123, "Accounting for Stock-Based Compensation," to options and restricted stock granted under the Company's stock option plans in the period prior to the adoption of FAS 123R. For purposes of this pro forma disclosure, the value of the options is estimated using a Black-Scholes option-pricing formula and amortized to expense over the option's vesting period.

	<u>Year Ended April 30, 2006</u>
Net loss, as reported	\$(35,533,055)
Add: Share-based employee compensation expense related to restricted stock included in reported net income, net of related tax effects	108,399
Deduct: Total share-based employee compensation expense determined under the fair value based method for all awards, net of related tax effects	<u>(5,202,399)</u>
Pro forma net loss	<u><u>\$(40,627,055)</u></u>
Earnings per share:	
Basic and Diluted—as reported	<u>\$ (0.67)</u>
Basic and Diluted—pro forma	<u><u>\$ (0.76)</u></u>

Segment Information

The Company separately discloses its principal operations in accordance with SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." The Company classifies its continuing business operations into two segments: Quantum Fuel Systems and Corporate.

Comprehensive Income

Other comprehensive income refers to revenues, expenses, gains and losses that under U.S. generally accepted accounting principles are included in comprehensive income but are excluded from net income as these amounts are recorded directly as an adjustment to stockholders' equity. The Company's other comprehensive income at April 30, 2007 consisted of foreign currency translation adjustments. As a result of the disposal of the Tecstar Automotive Group business segment on January 16, 2008 and the deconsolidation of ALP effective on April 10, 2008, the Company has no other comprehensive income to report as of April 30, 2008.

Interest Expense

The Company accounts for amortization of deferred loan origination costs incurred on its credit facilities and amortization of the premium recorded on senior subordinated convertible notes upon the early extinguishment of debt under the "effective interest method." This method adjusts interest expense recorded for contractual interest payments under these debt obligations by the amortization of loan costs and the premium recorded on a straight-line basis over the expected life of the debt obligations to arrive at an effective interest expense.

Reclassification

Certain reclassifications, including reclassification of all historical activities and balances of the Tecstar Automotive Group business segment as discontinued operations, have been made to fiscal year 2006 and 2007 amounts to conform to the fiscal year 2008 presentation.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Other Recently Issued Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" ("FAS 157"). FAS 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. This statement is effective for the Company at the beginning of its 2009 fiscal year. The Company is currently evaluating the impact of the provisions of FAS 157.

In February 2007, the FASB issued SFAS No. 159, "The Fair Option for Financial Assets and Financial Liabilities—including an amendment of FASB Statement No. 115," ("FAS 159"), which allows measurement at fair value of eligible financial assets and liabilities that are not otherwise measured at fair value. If the fair value option for an eligible item is elected, unrealized gains and losses for that item shall be reported in current earnings at each subsequent reporting date. SFAS No. 159 also establishes presentation and disclosure requirements designed to draw comparison between the different measurement attributes the Company elects for similar types of assets and liabilities. This statement is effective for the Company at the beginning of its 2009 fiscal year. The Company is currently evaluating the impact of the provisions of FAS 159.

In December 2007, the FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51" ("FAS 160"). FAS 160 will change the accounting and reporting for minority interests, which will be recharacterized as noncontrolling interests and classified as a component of equity. This new consolidation method will significantly change the accounting for transactions with minority interest holders. This statement is effective for the Company at the beginning of its 2010 fiscal year. The Company is currently evaluating the impact of the provisions of FAS 160.

In March 2008, the FASB issued SFAS No. 161, "Disclosures about Derivative Instruments and Hedging Activities—an Amendment of SFAS No. 133" ("FAS 161"). FAS 161 modifies existing requirements to include qualitative disclosures regarding the objectives and strategies for using derivatives, fair value amounts of gains and losses on derivative instruments and disclosures about credit-risk-related contingent features in derivative agreements. In addition, FAS 161 requires the cross-referencing of derivative disclosures within the financial statements and notes thereto. This statement is effective for the Company at the beginning of the fourth quarter of its 2009 fiscal year. The Company is currently evaluating the impact of the provisions of FAS 161.

3. Disposal of Tecstar Businesses—Discontinued Operations

On January 11, 2008, Tecstar Automotive Group was in default of the January 1, 2008 semi-annual interest payment due to affiliates of the Company's secured lender under terms of the Tecstar Convertible Notes. As a result of the default, all the amounts due under the Tecstar Convertible Notes were immediately due and payable. On January 16, 2008, the Company completed a series of transactions that restructured the Company's outstanding debt obligations and resulted in the transfer of substantially all of the assets of the Tecstar Automotive Group business segment to an affiliate of the secured lender, WB Automotive, Inc. (WB Automotive), as payment in full of the obligations due under the Tecstar Convertible Notes.

The transfer of the Tecstar business segment was structured as a strict foreclosure under Article 9 of the Uniform Commercial Code pursuant to which Tecstar Automotive Group assigned to WB Automotive all of its right, title and interest in and to (i) the equity interests in Tecstar's operating subsidiaries (the "Operating Subsidiaries"), (ii) Tecstar's interest in the Amstar joint venture, (iii) receivables owed to Tecstar by the Operating Subsidiaries and (iv) Tecstar's interest in a \$1.0 million cash collateral account, in full payment and satisfaction of the amounts owed by Tecstar under the Tecstar Convertible Notes. WB Automotive also released Quantum from its guaranty of the Tecstar Convertible Notes and the Tecstar Term Note. In exchange for the

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

foregoing release, Quantum (i) caused Tecstar Automotive Group to enter into and complete the transactions described above, (ii) paid \$1.0 million to WB Automotive and (iii) agreed to assume \$0.7 million in unpaid interest owed under the Tecstar Convertible Notes. The lender subsequently cancelled the Tecstar Term Note in a separate agreement.

As a result of the transactions described above that resulted in the disposal of the Tecstar businesses, the historical activities and balances of the Tecstar Automotive Group business segment are reported as discontinued operations in the accompanying consolidated balance sheets, consolidated statements of operations and consolidated statements of cash flows for all periods presented in accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets."

The disposal of the Tecstar businesses resulted in a gain of \$8.6 million included in discontinued operations, net of taxes, for the year ended April 30, 2008 due in part from concessions granted by the lender in restructuring the debt obligations. Prior to the restructuring, the Company had recorded significant losses for the Tecstar Automotive Group business segment attributable to the write-down of its long-lived assets and negative operating results reported in previous quarters.

The historical operating results of the Tecstar Automotive Group business segment through the date of disposition on January 16, 2008, classified as discontinued operations, were as follows:

	Year Ended April 30,		
	2006	2007	2008
Revenue:			
Net product sales	\$164,032,146	\$ 122,125,703	\$ 53,738,861
Contract revenue	8,867,749	9,651,031	5,023,412
Total revenue	172,899,895	131,776,734	58,762,273
Costs and expenses:			
Cost of product sales	154,138,652	125,556,969	54,989,022
Research and development	8,084,994	9,842,351	5,450,843
Selling, general and administrative	23,562,468	27,921,928	15,204,456
Amortization of intangibles	2,420,928	2,862,286	698,570
Restructuring charge	—	2,326,868	—
Impairment of long-lived assets(1)	—	72,317,506	58,900,000
Total costs and expenses	188,207,042	240,827,908	135,242,891
Operating loss	(15,307,147)	(109,051,174)	(76,480,618)
Interest expense, net(5)	(2,871,684)	(4,224,076)	(3,171,291)
Gain on disposal of subsidiary	—	544,468	—
Gain on disposal of business segment(4)	—	—	8,641,447
Loss on early extinguishment of debt(2)	—	(6,300,000)	—
Minority interest in losses of subsidiaries ...	350,071	199,929	—
Other income (expense), net	(15,185)	80,649	5,827
Loss from discontinued operations before taxes ..	(17,843,945)	(118,750,204)	(71,004,635)
Income tax benefit(3)	656,786	857,608	4,942,472
Loss from discontinued operations	<u>\$ (17,187,159)</u>	<u>\$ (117,892,596)</u>	<u>\$ (66,062,163)</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

- (1) Included in fiscal 2007 were impairment charges to goodwill of \$71.7 million associated with Quantum's acquisition of Tecstar Automotive Group and \$0.6 million of goodwill associated with Tecstar Automotive Group's acquisition of Empire Coach. Included in fiscal 2008 were an impairment charges of \$45.8 million related to intangibles, \$9.6 million to write down property and equipment to estimated fair value and \$3.5 million to write off goodwill associated with Tecstar Automotive Group's acquisition of Regency.
- (2) Consists of a charge to recognize the fair value associated with the embedded conversion feature that was modified in January 2007 on the Tecstar Convertible Notes which originated in July 2004.
- (3) Tax benefit realized during fiscal 2008 mainly related to the elimination of a deferred tax liability in the amount of \$4.9 million recognized in connection with the impairment of the remaining unamortized balances of intangibles assets.
- (4) The components of the gain on disposal of the Tecstar Automotive Group business segment effective upon the cease of operations on January 16, 2008 consisted of the following:

Assets transferred to lender	\$(36,385,894)
Current liabilities assumed by lender	24,529,439
Long term liabilities assumed or released by lender	23,485,502
Release fee paid to lender upon transfer	(1,000,000)
Transaction fees and other	(1,987,600)
Total gain on disposal	<u>\$ 8,641,447</u>

- (5) Net interest expense associated with the Company's revolving line of credit and amortization of deferred loan fees were allocated 65% to the discontinued operations of the Tecstar Automotive Group business segment and 35% to continuing operations based on the estimated percentage of assets supporting the borrowing base of the respective operations. Included in fiscal years 2006, 2007 and 2008 is allocated net interest expense of zero, \$0.4 million and \$1.3 million, respectively.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The balances of the Tecstar Automotive Group business segment as of April 30, 2007, classified as discontinued operations, were as follows:

	<u>April 30, 2007</u>
Current assets:	
Cash and cash equivalents	\$ 1,492,674
Accounts receivable, net	16,948,284
Inventories, net	22,414,041
Prepays and other current assets	996,271
Total current assets	<u>\$41,851,270</u>
Non-Current Assets	
Property and equipment, net	\$14,170,101
Restricted cash equivalents and marketable securities(1)	1,000,000
Intangible assets, net(2)	46,518,782
Goodwill(3)	3,450,468
Deposits and other assets	1,496,910
Total non-current assets	<u>\$66,636,261</u>
Current Liabilities:	
Accounts payable	\$20,211,989
Accrued payroll obligations	1,135,363
Accrued interest	731,503
Notes payable	2,205,292
Deferred revenue	282,389
Accrued warranties	598,189
Customer deposits	835,123
Accrued restructuring	1,688,749
Other accrued liabilities	1,465,947
Current maturities of long-term debt(4)	440,841
Total current liabilities	<u>\$29,595,385</u>
Long Term Liabilities:	
Long-term debt, net of current maturities(4)	\$18,547,353
Deferred income taxes(5)	4,942,472
Other accrued liabilities	140,804
Total long term liabilities	<u>\$23,630,629</u>

- (1) Funds collateralized for the benefit of General Motors Acceptance Corporation (GMAC) in connection with financing of vehicle chassis for Regency operations. These funds were assigned to WB Automotive as part of the Strict Foreclosure Agreement.
- (2) Consists of intangibles associated with Tecstar Automotive Group contracts, customer relationship, existing technology, dealer network and trade names.
- (3) Represents goodwill associated with Tecstar Automotive Group's acquisition of Regency.
- (4) Primarily consists of a revolving line of credit and obligations payable to a former shareholder of Wheel to Wheel, Inc.
- (5) Represents deferred tax liability resulting from the amortization of intangible assets for certain years that exceed the statutory carry forward period.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

4. Strategic Relationship with General Motors

The Company entered into a ten-year strategic alliance with General Motors at the time of the Spin Off regarding the development of fuel systems for fuel cell applications. Under the terms of the strategic alliance, General Motors acquired shares of stock originally representing 19.9% of the Company's issued and outstanding capital stock following the Spin Off. The ownership interest of General Motors has since declined to 5.7% at April 30, 2008 as a result of dilution resulting from additional shares issued by the Company since the Spin Off.

Under the strategic alliance, the Company has agreed to work with General Motors to advance and commercialize, on a global basis, fuel cell systems and the market for fuel cells to be used in transportation, mobile, stationary and portable applications. The alliance facilitates the integration, interface, and optimization of General Motors' fuel cell systems with Quantum's gaseous fuel storage and handling modules. Each party retains the ownership of its existing technology and jointly owns technology that is created under the alliance. The Company has the opportunity to use jointly created technologies in certain aspects of its business but will be required to share revenue with General Motors on fuel cell system-related products that are sold to General Motors or third parties in the future.

The strategic alliance provides that:

- General Motors will actively support, endorse and recommend the Company to its customer base;
- General Motors will assist and provide guidance with respect to the Company's directed research and development of fuel cell applications;
- The Company will appoint one individual nominated by General Motors to the board of directors during the term of the agreement and General Motors will be entitled to appoint an "ex-officio" board member with non-voting capacity during the term of the agreement;
- The Company agreed that, subject to limited exceptions, it would not issue any stock in a private placement transaction without the prior written consent of General Motors;
- The Company committed to spend up to \$4.0 million annually for specific research and development projects directed by General Motors to speed the commercialization of the Company's fuel cell related products (see Note 13); and
- Beginning July 24, 2005 for non-automotive applications and July 24, 2008 for automotive applications, the Company is obligated to provide revenue sharing payments to General Motors based on a percentage of gross revenue derived from sales of applications developed under the strategic alliance (see Note 13). The revenue sharing payments will equal 5% of applicable gross revenue through July 23, 2015, 4% for the ten-year period ending July 23, 2025, 3% for the ten-year period ending July 23, 2035, and 2% for the ten-year period ending July 23, 2045. On July 23, 2045, the Company will also be obligated to provide a final revenue sharing payment to General Motors equal to the present value of future revenue sharing payments that would otherwise be payable to General Motors on an annual basis assuming an income stream to General Motors of 2% of the Company's gross revenues in perpetuity.

Through April 30, 2008, General Motors has not nominated a board member or appointed a board representative and no revenue sharing payments have been applicable or recognized under the terms of the strategic alliance.

Under the alliance, General Motors has a right of first refusal in the event that the Company proposes to sell, or otherwise transfer its fuel cell-related intellectual property contemplated under the alliance. In the event that the Company decides to discontinue operations or is deemed insolvent, General Motors has the right to purchase the intellectual property contemplated under the alliance at a price to be determined by an independent appraisal firm approved by both the Company and General Motors.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

5. Investments in Affiliates

Fisker Automotive

On August 7, 2007, the Company and Fisker Coachbuild, LLC, launched a new venture, Fisker Automotive, Inc. (Fisker Automotive) to produce premium plug-in hybrid automobiles. Upon formation, the Company owned 62.0% of Fisker Automotive. Through April 30, 2008, Fisker Automotive has raised a level of capital that has resulted in the dilution of the Company's ownership interest down to 30.7%. There are six members on Fisker Automotive's Board of Directors, of which the Company has the right to appoint two of the members. The Company has appointed its Chairman of the Board of Directors and its Chief Executive Officer to serve as directors of Fisker Automotive. Fisker Automotive will need to raise additional capital in order to complete future phases of development, testing, and tooling for the new vehicle platform, which will further reduce the Company's ownership percentage in Fisker Automotive.

The Company accounts for its equity interest in Fisker Automotive under the equity method of accounting in accordance with APB Opinion No. 18, "The Equity Method of Accounting for Investments in Common Stock," (APB 18). Due to the temporary nature of its majority interest in Fisker Automotive, the Company also accounted for its initial equity interest in Fisker Automotive under the equity method. Although Fisker Automotive is a variable interest entity as defined by FASB Interpretation No. 46 (revised December 2003), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51" (FIN 46R), the Company is not the primary beneficiary as defined by FIN 46R as it is not required to absorb a majority of current and potential future losses or to be considered the primary beneficiary of a gain generated by Fisker Automotive.

Fisker Automotive has incurred accumulated deficits from inception through April 30, 2008 for design and development activities for the new vehicle platform. The Company has not contributed any cash or other assets with a historical cost basis to the venture and has no obligation to fund deficit balances. As a result, the Company's initial investment balance and balance as of April 30, 2008 is zero and there is no activity to be reported in the Company's consolidated statement of operations for the year ended April 30, 2008.

During the third quarter of fiscal 2008, the Company completed an initial concept analysis program on powertrain and software control systems for the production intent hybrid-electric vehicle under a \$1.0 million arrangement. On February 14, 2008, the Company was awarded a second contract for \$13.5 million for the second phase of the development. Under the second phase, the Company is developing the powertrain and software control systems and will integrate its plug-in hybrid electric vehicle architecture that it calls "Q-Drive" for the Fisker Karma production model that is expected to have initial deliveries beginning in the fourth quarter of calendar 2009. The Company received \$6.5 million in cash from Fisker Automotive during fiscal 2008 and recognized \$2.2 million in contract revenue during this period. The cash received in excess of the revenue earned of \$4.3 million is included as part of deferred revenue on the consolidated balance sheet as of April 30, 2008.

Asola

On January 4, 2008, the Company acquired a 24.9% ownership interest in asola Advanced and Automotive Solar Systems GmbH (Asola), a solar module manufacturer located in Erfurt, Germany. In exchange for the ownership interest, the Company (i) provided 0.3 million euro (US\$0.4 million), (ii) committed to contribute an additional 1.2 million euro (US\$1.9 million was contributed on May 8, 2008) to provide for capital equipment for the planned expansion of Asola's annual manufacturing capacity to approximately 40 to 45 mega watts peak (MWp), (iii) committed to provide a guaranty to Asola's bank of 1.0 million euro related to an anticipated expansion of Asola's bank financing arrangement, and (iv) committed to transfer 15.0% ownership interest in its

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

solar venture in the United States, if and when such venture is established. The conversion rate of one euro to one U.S. dollar was 1.56 to 1 as of April 30, 2008. The Company accounts for its equity interest in Asola under the equity method of accounting in accordance with APB 18. Although Asola is a variable interest entity, the Company is not considered the primary beneficiary as defined by FIN 46R.

Asola has reported total assets of 11.3 million euro; total liabilities of 9.5 million euros, including debt obligations of 1.4 million euros, as of December 31, 2007 (unaudited); revenues of 24.9 million euro and net profits of 0.7 million euro for calendar year 2007 (unaudited); and revenues of 13.3 million euro and net profits of 0.9 million euro for the period January 1, 2008 to April 30, 2008 (unaudited). The Company's equity in earnings of Asola was US\$0.3 million from the date of the equity investment through April 30, 2008.

On November 7, 2007 the Company entered into an agreement with Asola under which it agreed to purchase one-half of Asola's rights and obligations under a certain long-term solar cell supply agreement to which Asola is a party. Asola's obligations under the long-term solar cell supply agreement, dated November 1, 2007, includes the required purchase by Asola of solar cells with a cumulative power of 155 mega watts peak (MWp) for the period from January 1, 2008 through December 31, 2017 at predetermined fixed prices, with prepayments required by November 1, 2007 of 1.0 million euro, by September 1, 2008 of 3.0 million euro, and by September 1, 2009 of 5.0 million euro.

The Company's agreement to purchase one-half of Asola's rights and obligations under Asola's long-term solar cell supply agreement provides the Company with the rights to purchase 77.5 MWp. In consideration for Asola's sale of one-half of its contract rights, the Company paid Asola 1.0 million euro (US\$1.4 million) on October 29, 2007 and agreed that it is responsible for up to 1.5 million euro of the prepayment due in 2008 and responsible for up to 2.5 million euro of the prepayment due in 2009. The Company's payment to Asola in October 2007 in connection with the solar cell arrangement is included in deposits and other assets on the consolidated balance sheet as of April 30, 2008. The Company anticipates that Asola will generate cash flows sufficient to cover a portion of the prepayments; however, if there is insufficient cash available within Asola operations, the Company will endeavor to raise funds specifically for Asola to cover the shortfall. The Company had not purchased any solar cells from Asola under the arrangement through April 30, 2008.

These agreements secure a ten-year supply of silicon photovoltaic solar cells that Asola and the Company anticipate to utilize for the manufacture of solar modules for commercial, residential, and automotive applications in both Europe and the United States.

The Company's unconditional obligations to purchase solar cells from Asola and provide its share of prepayments to Asola over the next five years (in euros and in U.S dollars based on the currency exchange rate as of April 30, 2008) are as follows:

<u>Twelve months ending December 31:</u>	<u>Euros:</u>	<u>US Dollars:</u>
2008	2,421,000	\$ 3,777,000
2009	5,844,000	9,117,000
2010	8,110,000	12,652,000
2011	15,720,000	24,523,000
2012	15,220,000	23,743,000
Thereafter	68,495,000	106,852,000
Total	<u>115,810,000</u>	<u>\$180,664,000</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The Company recorded its initial investment in Asola at cost and adjusts the carrying amount of the investment to recognize its share of the earnings of Asola after the date of acquiring the ownership interest. The carrying balance of the Company's investment in Asola as of April 30, 2008 is as follows:

	<u>U.S. Dollars:</u>
Initial payment associated with ownership stake (0.3 million euro)	\$ 444,360
May 2008 payment associated with ownership stake (1.2 million euro)	1,869,000
Transaction costs associated with ownership stake	131,666
Accumulated equity in earnings	335,500
Investment in affiliate	<u>\$2,780,526</u>

Advanced Lithium Power

On March 24, 2006, the Company obtained an initial 35.5% ownership interest in Advanced Lithium Power, Inc (ALP). In addition to its direct ownership stake, the Company has certain voting arrangements in place and has protective rights for certain decisions made at the ALP board level, including third party use of ALP's technology, that require approval by one of the Company's board representatives. There are six members on ALP's Board of Directors, of which the Company has the right to appoint two of the members. The Company has appointed its Chairman of the Board of Directors and its Chief Executive Officer to serve as directors of ALP. The Company has also invested CAD\$500,000 in convertible debentures, which allows the Company to convert the debentures into shares of ALP's common stock at an equivalent value of CAD\$0.12 per share through December 31, 2008.

The accounts of ALP were included in the consolidated financial statements from the date of the Company's initial ownership interest until April 10, 2008 (the "Consolidation Period") due to the nature of the controlling voting interest the Company had secured in ALP during the Consolidation Period. As a result of additional financing obtained by ALP during the Consolidation Period and the ratification of a revised allotment and pricing of common shares by ALP's Board of Directors on April 10, 2008, the Company's equity stake (15.4% as of April 30, 2008) plus its voting interests declined to a level where it no longer maintained in control of a majority of the voting interests in ALP. Accordingly, the Company deconsolidated ALP and began accounting for its equity stake under the equity method of accounting.

Although ALP is a variable interest entity as defined by FIN 46R, the Company is not the primary beneficiary as defined by FIN 46R as it is not required to absorb a majority of current and potential future losses or to be considered the primary beneficiary of a gain generated by ALP.

ALP has incurred a level of accumulated losses to date such that the Company's share of the losses exceeds the Company's total investment in ALP. The Company has no obligation to fund deficit balances. As a result, the Company's initial investment balance at the time of deconsolidation of ALP's accounts was zero. The balance as of April 30, 2008 is also zero and there is no equity in earnings or losses associated with ALP to be reported in the Company's consolidated statement of operations for the year ended April 30, 2008.

The minority interest reported on the consolidated balance sheet as of April 30, 2007 and the minority interest in losses of subsidiary reported on the consolidated statements of operations for the three years ended April 30, 2008 represent the minority interest position held by ALP's Chief Executive Officer and other officers of ALP, along with other unaffiliated parties during the Consolidation Period. The reporting of minority interest positions of ALP ceased upon the deconsolidation of their accounts.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

6. Accounts Receivable

Accounts receivable of continuing operations consist of the following:

	<u>April 30,</u>	
	<u>2007</u>	<u>2008</u>
Customer accounts billed	\$2,409,299	\$8,023,981
Customer accounts unbilled	919,839	2,247,731
Allowance for doubtful accounts	(184,726)	(606,961)
Accounts receivable, net	<u>\$3,144,412</u>	<u>\$9,664,751</u>

7. Inventories

Inventories of continuing operations consist of the following:

	<u>April 30,</u>	
	<u>2007</u>	<u>2008</u>
Materials and parts	\$ 7,719,490	\$ 5,609,388
Work-in-process	164,848	12,085
Finished goods	<u>2,047,448</u>	<u>1,496,212</u>
	9,931,786	7,117,685
Less provision for obsolescence	(1,705,360)	(1,055,548)
Inventories, net	<u>\$ 8,226,426</u>	<u>\$ 6,062,137</u>

During fiscal 2008, the Company received \$2.2 million in proceeds from a partial settlement of an insurance claim primarily covering water damages to the Company's inventory, structural damages to a facility that is insured, but not owned, by the Company, and other costs to mitigate the impacts of flooding associated with the incident. There was a gain resulting from the partial settlement of \$0.5 million, primarily related to the difference between the fair value and book value of the inventory damaged that is included in selling, general and administrative costs in the accompanying consolidated statement of operations for the twelve month period ended April 30, 2008.

8. Warranties

The Company offers a warranty for all of its alternative fuel products. The specific terms and conditions of those warranties vary depending on the platform and model year. Warranty is provided for under terms similar to those offered by the OEM to its customers. The Company estimates the costs that may be incurred under its warranty and records a liability in the amount of such costs at the time product revenue is recognized. Factors that affect the Company's warranty liability include the number of units sold, historical and anticipated rates of warranty claims, and cost per claim.

The Company generally disclaims all warranties on its prototype hydrogen fuel storage systems. At its discretion or under certain programs, the Company may provide for the replacement cost or perform additional tests of prototype component parts subsequent to product delivery. The Company includes an estimate of these types of arrangements as part of its warranty liability. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Changes in the Company's product warranty liability for continuing operations are as follows (in thousands):

	Balance at Beginning of Year	Warranties Issued	Settlements Made	Changes in Liability for Pre-Existing Warranties	Balance at End of Year
April 30, 2006	\$668	\$ 235	\$(118)	\$(421)	\$364
April 30, 2007	364	387	(17)	(268)	466
April 30, 2008	466	1,183	(403)	(580)	666

9. Property and Equipment

Property and equipment of continuing operations consist of the following:

	April 30,	
	2007	2008
Tooling, dies and molds	\$ 3,018,290	\$ 3,018,290
Plant machinery and equipment	11,531,476	10,529,701
Information systems and office equipment	8,724,416	8,827,600
Automobiles and trucks	289,304	259,099
Leasehold improvements	3,150,345	3,145,179
Construction in progress	7,810	999,942
	<u>26,721,641</u>	<u>26,779,811</u>
Less accumulated depreciation and amortization	(22,191,400)	(22,927,245)
Net property and equipment	<u>\$ 4,530,241</u>	<u>\$ 3,852,566</u>

Total depreciation expense on property and equipment of continuing operations for fiscal years ended April 30, 2006, 2007 and 2008 was approximately \$2.1 million, \$2.2 million and \$2.1 million, respectively.

10. Goodwill and Other Intangible Assets

Goodwill

Acquisitions meeting business combinations criteria often give rise to goodwill. The Company utilizes the services of independent valuation consultants to assist in allocating purchase price to acquired assets and liabilities assumed in connection with acquisition activities.

A portion of the goodwill that was associated with the acquisition of Tecstar Automotive Group in March 2005 was allocated to the Quantum Fuel Systems business segment. The allocated amount represented 30% or \$30.4 million of the total \$102.1 million recognized as goodwill in connection with the acquisition. The amount allocated to the Tecstar Automotive Group of \$71.7 million was considered impaired and written off in fiscal 2007 and is included in the loss from discontinued operations, net of tax, on the consolidated statement of operations.

Goodwill is not subject to amortization. There were no changes in the carrying value of goodwill allocated to the Quantum Fuel Systems segment during the year ended April 30, 2008.

Other Intangible Assets

General Motors Strategic Alliance

In connection with a strategic alliance with General Motors, the Company issued approximately 3.5 million shares of its Series A common stock to General Motors on July 24, 2002. This issuance has been recorded as an intangible asset at the estimated fair market value on the date of the Spin Off of approximately \$14.3 million.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Pursuant to the terms of an Amended and Restated Certificate of Incorporation, upon the completion of the Company's January 2003 public equity offering, all of the approximately 3.5 million shares of outstanding Series A common stock held by General Motors converted automatically into shares of the Company's common stock on a one-for-one basis, and the Company issued to General Motors an aggregate of approximately 1.0 million shares of its non-voting Series B common stock. The issuance of the Series B common stock has been recorded as additional consideration related to the strategic alliance between the companies at the estimated fair market value on the date of the public offering of approximately \$2.2 million. As a result, the intangible asset recorded in connection with the Company's issuance of Series B common stock to General Motors increased by \$2.2 million to \$16.5 million.

Advanced Lithium Power

ALP's primary objective is to develop lithium ion and advanced battery control systems that control state-of-charge and provide for thermal management, resulting in high-performance energy storage. ALP's primary assets are intellectual property contributed by other shareholders of ALP and its technology has significant opportunities and applications in hybrid electric vehicles, fuel cell vehicles, uninterruptible power supplies, and energy storage for renewable energy, such as solar photovoltaic applications. As of the date of the formation in March 2006, the Company assigned \$0.2 million as intangible assets related to intellectual property and technology. The reporting of intangible assets of ALP ceased as of April 10, 2008 upon the deconsolidation of this entity (see Note 5).

The Company amortizes specifically identified intangible assets using the straight-line method over the estimated useful lives of the assets in accordance with SFAS No. 142. Intangible assets of continuing operations consist of the following:

	Estimated Useful Life	April 30,	
		2007	2008
GM Strategic Alliance Agreement:			
Gross carrying value	120 months	\$16,479,358	\$16,479,358
Accumulated amortization		(7,798,977)	(9,458,752)
Net carrying value		8,680,381	7,020,606
ALP patents and technology:			
Gross carrying value	192 months	234,997	—
Accumulated amortization		(15,913)	—
Net carrying value		219,084	—
		<u>\$ 8,899,465</u>	<u>\$ 7,020,606</u>

The expected amortization expense for the next five twelve-month periods and thereafter, is as follows:

	Amortization Expense
Fiscal year 2009	\$1,659,775
Fiscal year 2010	1,659,775
Fiscal year 2011	1,659,775
Fiscal year 2012	1,659,775
Fiscal year 2013	381,506
Thereafter	—
	<u>\$7,020,606</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In accordance with SFAS No. 142 and SFAS No. 144, the Company assessed goodwill and reviewed intangibles and other long-lived assets for indicators of impairment. The Company believes that no event or circumstance currently exists that would indicate impairment of the carrying values as of April 30, 2008 for these long-lived assets.

11. Long-term Debt

Long-term debt of continuing operations consists of the following:

	<u>April 30,</u>	
	<u>2007</u>	<u>2008</u>
Convertible Note, \$15,000,000 face value and \$6,009,231 unamortized premium in 2007; \$16,195,676 face value, \$4,846,154 unamortized premium and \$539,413 accrued interest in 2008	\$21,009,231	\$21,581,243
Term Note A, originated January 2007	10,000,000	10,000,000
Term Note B, originated January 2008	—	10,000,000
Other obligations	20,104	367,499
Long-term debt, current and non-current	31,029,335	41,948,742
Less current maturities for scheduled payments and premium amortization of debt	(3,872,294)	(8,325,144)
Long-term debt, non-current	<u>\$27,157,041</u>	<u>\$33,623,598</u>

On January 11, 2008, Tecstar Automotive Group was in default of the January 1, 2008 semi-annual interest payment due to affiliates of the Company's secured lender under terms of the Tecstar Convertible Notes. As a result of the default, all the amounts due under the Tecstar Convertible Notes were immediately due and payable. On January 16, 2008, the Company transferred substantially all the assets of the Tecstar Automotive Group business segment to an affiliate of its lender, WB Automotive, in satisfaction of the Tecstar Convertible Notes pursuant to the Strict Foreclosure Agreement discussed in Note 3. In connection therewith, the Company's outstanding debt instruments payable to the lender were restructured in a manner that resulted in the elimination or release of \$20.5 million of debt and provided the Company with incremental net borrowing capacity of \$1.9 million. The elimination or release of debt included approximately \$15.5 million secured by Tecstar Automotive Group's assets under a revolving line of credit and the \$5.0 million Tecstar Term Note. The revolving credit facility, with a remaining availability of approximately \$8.1 million after the transfer of the Tecstar business assets to the lender, was terminated and replaced with the \$10.0 million Term Note B. The Company also assumed \$0.7 million in unpaid interest owed under the Tecstar Convertible Notes as part of the restructure.

The Company accounted for the changes in the debt structure as a troubled debt restructuring in accordance with SFAS No. 15, "Accounting by Debtors and Creditors for Troubled Debt Restructurings," as a result of concessions granted by the lender by way of modifications to the terms of the existing debt structure and releases of certain debt obligations and guarantees of the Company. Although the Company calculated a contingent gain on the restructure of the debt obligations with the lender, it did not recognize the gain because it is possible that the gain could be offset by future interest charges resulting from the payment multiplier under the Term Note B described below.

The modified and restructured debt instruments have outstanding obligations of \$41.6 million as of April 30, 2008. These consist of a \$21.6 million convertible note (\$16.2 million face amount, \$4.9 million unamortized premium and \$0.5 million accrued interest) issued on January 16, 2008 that matures on July 1, 2009

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

(Convertible Note); a \$10.0 million term note issued on January 31, 2007 that matures on January 31, 2010 (Term Note A) and a \$10.0 million term note issued on January 16, 2008 that matures on January 16, 2015 (Term Note B).

On May 30, 2008, the Company received \$7.5 million in proceeds under the new Term Note C and secured the \$10.0 million May 2008 Commitment from its lender. In connection with this incremental financing, the Company and its lender agreed on certain modifications to the Convertible Note, Term Note A and Term Note B.

The Convertible Note, as amended on May 30, 2008, has an annual interest rate of 11.5% with a cash or payment-in-kind option. The holder of the Convertible Note has the right to extend the scheduled maturity date of July 1, 2009 for an additional three years (if exercised, the interest rate is thereafter lowered to 9.5%). The Convertible Note has scheduled semi-annual interest payment dates on January 1 and July 1 of each year until maturity and the principal cannot be prepaid in part or whole by the Company without consent of the holder. The carrying value of the Convertible Note includes an unamortized premium of \$4.9 million as of April 30, 2008 that represents the estimated fair value of the conversion option above the face amount of the note transferred from the Tecstar Convertible Notes in connection with the debt restructure. The conversion price on the Convertible Note is \$1.35 per share and the holder has the option to convert at any time until maturity. For purposes of disclosing the maturities of long-term debt below, the scheduled maturity date of July 1, 2009 is utilized as an assumption.

As a result of the substantial changes to the Tecstar Convertible Notes and the execution of a guaranty by the Company of the obligations under the Tecstar Convertible Notes in January 2007, there was an implied exchange of debt instruments as prescribed in EITF 96-19, "Debtor's Accounting for a Modification or Exchange of Debt Instruments." In accordance with EITF 96-19, the original Tecstar Convertible Notes, with an outstanding balance of \$15.0 million just prior to the amendment, were accounted for as an early extinguishment of debt and the amended Tecstar Convertible Notes were accounted for as a new debt instrument and recorded at an estimated fair value of \$21.3 million on the date of the January 2007 transaction. The replacement of the original debt instrument with a new debt instrument resulted in a charge of \$6.3 million recorded during fiscal year 2007 that is included in loss from discontinued operations. The Company utilized the services of independent valuation consultants to assist in determining the fair value of the new debt instrument. The \$6.3 million difference between the fair value and face value of the Tecstar Convertible Notes as of the January 2007 transaction date is being amortized against interest expense over the 65 month expected life (July 2012) of the notes to reflect the effective interest rate of the new debt instrument. In connection with the January 16, 2008 restructure, the amended Tecstar Convertible Notes that were satisfied with the transfer of Tecstar's assets to the lender were replaced by the new Convertible Note executed by Quantum that had similar terms as the Tecstar Convertible Notes. The initial principal balance of the Convertible Note of \$16.2 million consisted of the principal amount of the Tecstar Convertible Notes at the point just prior to the January 2008 restructure of \$15.5 million plus unpaid interest owed on the Tecstar Convertible Notes of \$0.7 million that was assumed by Quantum. The execution of the Convertible Note was also considered an implied exchange of debt instruments under EITF 96-19, but did not result in a substantial change in the fair value of the obligation as a result of the debt instruments having similar terms. Accordingly, the remaining unamortized balance and the expected remaining life of the premium, arising pursuant to the January 2007 restructure, were not affected by the January 2008 restructure.

The May 2008 modifications to the Convertible Note also now provide for the lender to be entitled to receive upon conversion of all or part of the balance due under the Convertible Note, the sum of each coupon that would otherwise have been paid on the portion of the Convertible Note converted (referred to as the "Make-Whole Amount"). The Make-Whole Amount is payable in shares of the Company's common stock. The number of shares issuable in payment of the Make-Whole Amount is determined by dividing the Make-Whole Amount

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

by \$1.50. The maximum amount of the Convertible Note that the lender may convert during the first six months is limited to \$8.0 million (Conversion Cap). Provided that, conversions effected on any trading day on which the Company's shares are trading at a price in excess of \$2.50 per share do not count against the Conversion Cap. The Conversion Cap expires after six months. Additionally, the anti-dilution conversion price reset provision was eliminated in connection with the modifications.

The Term Note A, as amended on January 16, 2008 and on May 30, 2008, has required monthly interest payments in cash in arrears at 12.0% through September 15, 2008, increasing by 1.0% each month thereafter, up to a maximum rate of 18.0%. Principal reductions of \$0.4 million are required commencing on October 15, 2008, until maturity, with an additional payment of \$3.9 million required on March 15, 2009. The Company has the option to prepay the principal ahead of the scheduled payment dates without penalty. The Company also has the option to repay the principal with shares of its common stock. If the Company chooses to repay in common stock, the value of the shares delivered will be determined based on 95% of the volume-weighted average price (VWAP) of the Company's stock for the five business days prior to the payment date. If the Company elects to make a payment in shares and cannot issue shares to the lender as a result of Nasdaq's Marketplace Rules as further defined below, any principal payment requirement is deferred under the note but must be made in cash on August 1, 2009 if the payment obligation is not satisfied by that date.

The Term Note B, as amended on May 30, 2008, requires monthly interest payments in arrears at a fixed rate of 6.5%. The Company and the holder of the Term Note B cannot prepay or call any part of the principal amount due until January 17, 2010. The Company has the option to repay the principal with shares of its common stock, provided certain conditions are met, most notably, a share price of at least \$0.50 for five consecutive business days prior to the payment date. When demand for payment is made, the principal amount that is due and payable is equal to the principal amount so demanded multiplied by the greater of (A) 1.0 and (B) 1.5 multiplied by the lesser of (x) the VWAP for the Company's common stock for the five business days immediately prior to the repayment date and (y) \$3.50. The minimum amount of principal that is payable through the maturity date under the multiplier is \$10.0 million and the maximum amount of principal that is payable under the multiplier is \$52.5 million. Although prior to the May 2008 amendment the maximum amount of principal that is payable under the multiplier was \$37.5 million, the number of shares issuable in payment of the principal remained fixed at 15.0 million. Upon the reduction of principal of the Term Note B, any increase in the payment or payments resulting from the multiplier will be recorded as a charge to interest expense. In addition, any increase in fair value of the Term Note B, including an anticipated increase in fiscal 2009 as a result of the May 30, 2008 amendment, will be recorded as a charge to interest expense.

On May 30, 2008, the Company received \$7.5 million in proceeds under a new term note that matures in August 31, 2009 (Term Note C). Principal payments in monthly installments of \$1.25 million commence on March 1, 2009 until maturity. Interest accrues on the note at 9.0% per annum and is due and payable on the first day of each month commencing on July 1, 2008. The Company may elect to pay the interest in cash or add it to the unpaid principal balance. The Company has the option to prepay the principal ahead of the scheduled payment dates without penalty. The Company also has the option to repay the principal with shares of its common stock. If the Company chooses to repay in common stock, the value of the shares delivered will be determined based on the lower of: (i) 95% of the VWAP of its stock for the five business days prior to the payment date, and (ii) the closing share price on the day immediately preceding the payment due date. If the Company elects to make a payment in shares and cannot issue shares to the lender as a result of Nasdaq's Marketplace Rules, any principal payment requirement is deferred under the note but must be made in cash on August 1, 2009 if the payment obligation is not satisfied by that date.

Also on May 30, 2008, the Company secured a \$10.0 million unconditional commitment (May 2008 Commitment) from its lender that allows the Company to draw on the commitment at its option and also allows

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

the lender to fund the commitment at the lender's option under certain defined structures. The option for either party expires on August 31, 2009. The May 2008 Commitment replaced a \$5.0 million commitment obtained in July 2007 with the lender that was unexercised and originally scheduled to expire on August 1, 2008. To date, neither the lender nor the Company has exercised the option under the May 2008 Commitment.

Should the Company choose to draw on the May 2008 Commitment, the lender has the option to choose between the three following structures: (i) in exchange for the Company's common stock at a 25.0% discount to market price with 100.0% warrant coverage at an exercise price equal to market price at the time of funding, (ii) a two year secured convertible note, the conversion price equal to a 10.0% discount to the market price and the coupon on the note equal to 12.0% payable in the Company's common stock, and (iii) a senior secured straight note that redeems in cash at 120% of face value after one year. In exchange for extending the commitment, the Company granted to the lender the option to make a \$10.0 million investment that will be structured as a non-interest bearing convertible note priced at 100.0% of par and redeemable at 120.0% of par two years after the funding date. The note under this structure would convert into the Company's common stock at a price equal to the market price.

Each of the outstanding debt instruments with the lender have structures that allow for the satisfaction of principal to be paid in shares of the Company's common stock, either upon conversion, or at the Company's option under the term notes. Although the Company anticipates that a significant portion or all of the principal obligations can be satisfied in shares in lieu of cash, all of the debt instruments with its lender prohibit the Company from issuing shares to the lender in payment of any amounts if the issuance would cause the aggregate number of shares issued in connection with or under the notes to exceed 19.99% of the Company's issued and outstanding shares in violation of the Marketplace Rules of the Nasdaq Stock Market (Marketplace Rules).

The Company is currently evaluating the accounting treatment and the impact to the consolidated financial statements associated with the May 2008 modifications of the debt instruments.

Transaction fees associated with the execution of the credit facilities and amendments with the lender and reflected as deferred loan fees on the consolidated balance sheet at April 30, 2007 and 2008, are being amortized against interest expense over the remaining life of the debt instruments.

The Company's obligations under the Convertible Note and the three term notes under the Credit Agreement are secured by substantially all the Company's assets. The Company is in compliance with all material covenants, reporting and other requirements of the debt instruments with its lender as of April 30, 2008.

Maturities of long-term debt (excluding effects of new financing and debt modifications occurring on May 30, 2008) for each of the next five twelve-month periods ending April 30 and thereafter, are as follows:

	Scheduled Payments	Amortization of Premium on Convertible Notes	Total Maturities of Long-Term Debt
Fiscal year 2009	\$ 7,162,068	\$1,163,076	\$ 8,325,144
Fiscal year 2010	29,703,994	1,163,076	30,867,070
Fiscal year 2011	75,568	1,163,076	1,238,644
Fiscal year 2012	82,877	1,163,076	1,245,953
Fiscal year 2013	77,185	193,850	271,035
Thereafter	896	—	896
	<u>\$37,102,588</u>	<u>\$4,846,154</u>	<u>\$41,948,742</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

12. Income Taxes

The following table presents the principal reasons for the difference between the effective tax rate and the federal statutory income tax rate for continuing operations:

	Year Ended April 30,		
	2006	2007	2008
Income tax benefit at U.S. statutory rates	(34.0)%	(34.0)%	(34.0)%
State and local income taxes, net of federal benefit	(5.1)%	(5.1)%	(5.1)%
Amortization of intangible asset	3.4%	2.9%	3.5%
Other	0.1%	0.8%	0.6%
Valuation allowance	35.6%	35.4%	35.0%
Effective tax rate	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>

The following table presents the provision for income taxes for continuing operations on a separate tax return basis:

	Year Ended April 30 ,		
	2006	2007	2008
Current:			
State and local	\$ 1,600	\$ 1,600	\$ 1,600
Deferred:			
Federal	(8,817,000)	(15,857,000)	(16,751,000)
State and local	(480,000)	(750,000)	(2,383,000)
	(9,297,000)	(16,607,000)	(19,134,000)
Less: Change in valuation allowance	9,297,000	16,607,000	19,134,000
Subtotal	—	—	—
Income tax expense	<u>\$ 1,600</u>	<u>\$ 1,600</u>	<u>\$ 1,600</u>

The components of deferred tax assets and liabilities for continuing operations are as follows:

	Year Ended April 30,	
	2007	2008
Deferred income tax assets:		
Accrued compensation	\$ 213,000	\$ 290,000
Accrued warranty	182,000	260,000
Inventory	667,000	413,000
Loss on debt extinguishment	—	1,895,000
Share based compensation	1,059,000	1,801,000
Other	267,000	759,000
Tax credits	765,000	765,000
Net operating loss carryforwards	42,739,000	58,632,000
	45,892,000	64,815,000
Less: Valuation allowance	(45,422,000)	(64,555,000)
Total deferred income tax assets	<u>470,000</u>	<u>260,000</u>
Deferred income tax liabilities:		
Equipment and leasehold improvements	(470,000)	(260,000)
Net deferred tax assets	<u>\$ —</u>	<u>\$ —</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

At April 30, 2008, the Company has federal net operating loss carryforwards of approximately \$161.1 million available to offset future federal taxable income. The federal net operating losses expire between the years 2021 and 2028. The Company has state net operating loss carryforwards of approximately \$75.6 million available to offset future state taxable income. The state net operating losses expire between 2014 and 2018. The Company has federal credit carryforwards of \$0.4 million that do not expire and state credit carryforwards of \$0.3 million that will expire within the next five years. The net operating loss carryforwards include approximately \$0.8 million of deductions related to stock option exercises. If and when the Company reduces any portion of its valuation allowance related to the stock option compensation deduction, the benefit will be added to stockholders equity, rather than being shown as a reduction of future income tax expense.

The U.S. tax laws contain provisions (Section 382 limitations) that limit the annual utilization of net operating loss and credit carryforwards upon the occurrence of certain events including a significant change in ownership interest. Generally, such limitations arise when the ownership of certain shareholders or public groups in the stock of a corporation change by more than 50 percentage points over a three-year period. The Company has incurred such an event in the past which limits the future use of its losses and may result in expiration of a portion of the losses before utilization. The Company may also have incurred such an event or events over recent years; however, the Company has not completed a current study to determine the extent of the limitations. Until a study is completed and the extent of the limitations is able to be determined, no amounts are being presented as an uncertain tax position under FIN 48.

The Company has established a full valuation allowance against its deferred tax assets since based on the Company's lack of earnings history and current evidence, it is unlikely that the assets will be fully realized.

13. Commitments and Contingencies

Leases

The Company leases its principal executive offices, located in Irvine, California, from Cartwright, LLC (Cartwright). Cartwright is owned by the Company's Chief Executive Officer, the Company's Chairman of the Board and parties unrelated to the Company. Cartwright acquired the real property from an unrelated third party on March 3, 2006. The Company's lease terms were unchanged by the purchase of the property by Cartwright. On October 17, 2007, the Company entered into a Lease Termination Agreement with Cartwright, under which the parties agreed that the lease for the Company's principal corporate offices will terminate one year earlier than originally scheduled. The lease was originally scheduled to terminate on August 31, 2009. Total payments under the lease agreement for fiscal years 2008 and 2007 amounted to \$0.6 million and \$0.6 million, respectively, and for the period March 3, 2006 to April 30, 2006 amounted to \$0.1 million. The Company is obligated to pay Cartwright a lease termination fee of \$0.2 million.

The Company has certain non-cancelable operating leases for facilities and equipment for continuing operations. Future minimum lease commitments under non-cancelable operating leases at April 30, 2008 are as follows:

	<u>Lease Obligation</u>
2009	\$ 1,489,242
2010	1,684,809
2011	1,724,841
2012	1,763,853
2013	1,813,313
Thereafter	<u>3,953,917</u>
Total minimum lease payments	<u>\$12,429,975</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Total rental expense under the operating leases of continuing operations for fiscal years ended April 30, 2006, 2007 and 2008 was approximately \$1.5 million, \$1.3 million and \$1.5 million, respectively. These leases are non-cancelable and certain leases have renewal options and escalation clauses.

Contingencies

The Company is subject to various legal proceedings and claims which arise out of the normal course of its business. Management and the Company's legal counsel periodically review the probable outcome of pending proceedings and the costs reasonably expected to be incurred. The Company accrues for these costs when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. In the opinion of management, any ultimate cost to the Company in excess of amounts accrued will not materially affect its consolidated financial position, results of operations or cash flows.

Compensation Plans

The Company sponsors a defined contribution plan (the "401K Plan") that is qualified under Internal Revenue Service Code Section 401(k). The 401K Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Under the 401K Plan, all applicable employees who are at least age twenty-one or older are eligible to participate in the 401K Plan at the beginning of the next month after their first day of employment with the Company. Contributions to the 401K Plan are based on funding standards established by ERISA. The Company's matching contributions under the 401K Plan are discretionary and match elective salary deferrals up to 3% of compensation.

Contributions attributable to the Company for continuing operations approximated \$0.3 million, \$0.3 million and \$0.2 million for fiscal years ended April 30, 2006, 2007 and 2008, respectively.

Employment Agreements

The Company has entered into employment agreements with its Chief Executive Officer and other executive officers and senior managers which provide for annual base salary, other benefits and severance obligations. The Company's obligation under the terms of these agreements for the fiscal year ending April 30, 2009 is approximately \$2.7 million. The Company's obligation beyond fiscal year 2009 totals approximately \$2.3 million.

Strategic Alliance with General Motors

Pursuant to the strategic alliance with General Motors (see Note 4), the Company has committed to spend \$4.0 million annually for specific research and development projects directed by General Motors to speed the commercialization of the Company's fuel cell related products. Since this commitment was waived or partially waived by General Motors for calendar years 2002 through 2007, the Company anticipates that this commitment will be waived or partially waived in the future. During fiscal 2008, total spending on directed research and development projects with General Motors approximated \$0.1 million.

The strategic alliance also requires the Company to pay royalties for products sold using certain technologies covered by the alliance. No royalty expense was incurred under the arrangement for any of the periods reported in the financial statements.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

14. Earnings (Loss) Per Share

The Company computes net income (loss) per share in accordance with SFAS No. 128, "Earnings Per Share." Under the provisions of SFAS No. 128, basic net income (loss) per share is computed by dividing the net income (loss) for the period by the weighted average number of common shares outstanding during the period. Diluted net income (loss) per share is computed by dividing the net income (loss) for the period by the weighted average number of common and common equivalent shares outstanding during the period.

The Company considers common equivalent shares from the exercise of stock options, warrants and convertible debt payable in the instance where the shares are dilutive to net income of the Company by application of the treasury stock method. The effects of stock options, warrants and convertible debt were anti-dilutive for all periods presented.

The following table sets forth the computation of basic and diluted loss per share:

	Year Ended April 30		
	2006	2007	2008
Numerators for basic and diluted loss per share data—to			
common stockholders:			
Loss from continuing operations	\$(18,345,896)	\$ (22,636,701)	\$(18,963,808)
Loss from discontinued operations	\$(17,187,159)	\$(117,892,596)	\$(66,062,163)
Net loss	\$(35,533,055)	\$(140,529,297)	\$(85,025,971)
Denominator for basic and diluted loss per share data—			
weighted-average shares	53,283,956	61,760,458	76,791,382
Basic and diluted per share data:			
Loss from continuing operations	\$ (0.35)	\$ (0.37)	\$ (0.25)
Loss from discontinued operations	\$ (0.32)	\$ (1.91)	\$ (0.86)
Net loss	\$ (0.67)	\$ (2.28)	\$ (1.11)

For fiscal years ended April 30, 2006, 2007 and 2008, options to purchase approximately 5.0 million, 5.8 million and 6.0 million and warrants to purchase approximately zero, 3.3 million, and 19.7 million shares of common stock, respectively, were excluded in the computation of diluted per share data, as the effect would be anti-dilutive. In addition, for the fiscal years ended April 30, 2006, 2007 and 2008, a convertible note obligation convertible into approximately 2.6 million, 6.4 million and 12.0 million shares of common stock, respectively, were excluded in the computation of diluted per share data, as the effect would be anti-dilutive.

15. Stockholders' Equity

Authorized Capital Stock

The Company's authorized stock consists of 20.0 million shares of preferred stock and 250.0 million shares of common stock. Of the 250.0 million shares of common stock, 2.0 million are designated as Series B common stock.

Quantum Common Stock

Holders of common stock are entitled to one vote for each share on all matters voted on by stockholders. Holders of common stock do not have cumulative voting rights in the election of directors.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Holders of common stock do not have subscription, redemption or conversion privileges. Subject to the preferences or other rights of any preferred stock that may be issued from time to time, holders of common stock will be entitled to participate ratably in dividends of the Company's common stock as declared by the board of directors. Holders of common stock will be entitled to share ratably in all assets available for distribution to stockholders in the event of liquidation or dissolution of the Company, subject to distribution of the preferential amount, if any, to be distributed to holders of preferred stock. No holder of any capital stock of the Company authorized at any such distribution date will have any preemptive right to subscribe for or purchase any securities of any class or kind of the Company.

Series B Common Stock

Shares of the Company's Series B common stock, held entirely by General Motors, are not entitled to vote on any matters voted on by stockholders except as otherwise specifically required by law. In the event the Company issues additional shares of common stock as a dividend or other distribution on the Company's outstanding common stock, or a subdivision or combination of common stock into a smaller or greater number of shares, the number of shares of Series B common stock will be adjusted to that number of shares of Series B common stock that is equal to the percentage of all outstanding shares of all series of the Company's common stock (excluding shares issued pursuant to a board-approved stock option or equity incentive plan) that the holders of Series B common stock held prior to such event. Upon the transfer of any of the outstanding shares of Series B common stock to any person or entity that is not controlled by or under common control with General Motors, the transferred shares of Series B common stock will convert into an equal number of shares of the Company's common stock. Subject to the preferences or other rights of any preferred stock that may be issued from time to time, holders of the Company's Series B common stock will be entitled to participate ratably in dividends on the Company's common stock as declared by the Company's board of directors. Holders of the Company's Series B common stock will be entitled to share ratably in all assets available for distribution to stockholders in the event of liquidation or dissolution of the Company, subject to distribution of the preferential amount, if any, to be distributed to holders of preferred stock.

Preferred Stock

The Company's charter authorizes the board of directors, without any vote or action by the holders of common stock, to issue up to 20.0 million shares of preferred stock from time to time in one or more series. The Company's board of directors are authorized to determine the number of shares and designation of any series of preferred stock and the dividend rights, dividend rate, conversion rights and terms, voting rights (full or limited, if any), redemption rights and terms, liquidation preferences and sinking fund terms of any series of preferred stock. Issuances of preferred stock would be subject to the applicable rules of the Nasdaq Global Market or other organizations on whose systems the Company's stock may then be quoted or listed. Depending upon the terms of preferred stock established by the Company's board of directors, any or all series of preferred stock could have preference over the Company's common stock with respect to dividends and other distributions and upon liquidation of the Company. Issuance of any such shares with voting powers, or issuance of additional shares of the Company's common stock, would dilute the voting power of the Company's outstanding common stock. The Company has no present plans to issue any preferred stock.

Restricted Stock

On May 1, 2005 the Company issued a total of 91,806 shares of restricted stock to the Chairman of the Board of Directors, the Chief Executive Officer and the Chief Financial Officer of the Company. The aggregate value of these shares, measured on the date of award based upon the closing price of Quantum's common stock of \$3.54, was approximately \$0.3 million and was recorded as compensation expense ratably over the three year restricted period until they vested in full on May 1, 2008.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

On March 14, 2008, the Company issued a total of 420,000 shares of restricted stock to the Chairman of the Board of Directors, the Chief Executive Officer, the Chief Operating Officer, the Chief Financial Officer, and all non-employee Directors of the Company. The aggregate value of these shares, measured on the date of award based upon the closing price of Quantum's common stock of \$0.80, was approximately \$0.3 million and will be recorded as compensation expense ratably over the three year restricted period until they vested in full on March 14, 2011. There has been no other restricted stock granted, vested or forfeited during the three year period ended April 30, 2008.

Warrants

In connection with the \$12.5 million private placement completed on June 29, 2006, investors received warrants to purchase 0.9 million shares of the Company's common stock at an exercise price of \$3.94 to the investors. The warrants expire in June 2011 and have a fair value of \$0.9 million.

In connection with the \$10.0 million private placement completed on October 27, 2006, investors received "A" warrants to purchase 2.1 million shares of the Company's common stock at an exercise price of \$2.36 and "B" warrants to purchase 1.8 million shares of the Company's common stock at \$1.64 per share. Upon exercise of the "B" warrants, the investors could have received up to 0.6 million additional warrants identical to the "A" warrants. The "A" warrants expire in April 2014 and have a fair value of \$3.5 million. The "B" warrants expired on February 2, 2007, and had a fair value of \$0.9 million.

In connection with the \$18.75 million private placement transaction that was completed on June 22, 2007, investors received warrants to purchase 15.0 million shares of common stock at \$2.09 per share, which included 2.5 million shares provided to the October 2006 investors in exchange for those investors waiving certain rights obtained in the October 2006 private placement. The warrants expire in December 2014 and have a fair value of \$16.8 million. The June 2007 private placement triggered a contractual reset of the exercise price of the "A" warrants issued in October 2006 from \$2.36 to \$1.50 per share.

Pursuant to the private placement transactions, the Company entered into registration rights agreements that required the Company to file registration statements with the SEC registering the shares issued for resale. The Company evaluated the warrants and related registration rights agreements in accordance with EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock," and has concluded that equity classification is appropriate due to the fact that the contracts are required to be physically settled in shares of the Company's common stock. The proceeds from the transactions have been allocated to the stock and the warrants based on their relative fair values; however, the Company aggregated the values for financial reporting purposes as both types of instruments have been classified as permanent equity.

There were no warrants outstanding as of April 30, 2006. During fiscal 2007, certain of the October 2006 private placement investors exercised "B" warrants and therefore received additional "A" warrants. Gross proceeds from the exercise amounted to \$1.3 million.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Warrant activity and warrants outstanding for the three years ended April 30, 2008 is as follows:

	Warrant Type				Totals
	June 2006 Warrants	October 2006 "A" Warrants	October 2006 "B" Warrants	June 2007 Warrants	
Warrants outstanding at April 30, 2006	—	—	—	—	—
Issued—original number	880,506	2,134,146	1,829,179	—	4,843,831
Issued—additional number	—	268,728	—	—	268,728
Exercised	—	—	(767,797)	—	(767,797)
Expired	—	—	(1,061,382)	—	(1,061,382)
Warrants outstanding at April 30, 2007	880,506	2,402,874	—	—	3,283,380
Issued—additional number	—	1,377,648	—	15,000,000	16,377,648
Warrants outstanding at April 30, 2008	880,506	3,780,522	—	15,000,000	19,661,028
Exercise Price	\$ 3.94	\$ 1.50	\$ 1.64	\$ 2.09	
Expiration Date	June 2011	April 2014	Feb 2007	Dec 2014	

Stock Options

The Company has one stock option plan, the 2002 Stock Incentive Plan (the "Options Plan"), which provides that options to purchase shares of the Company's unissued common stock may be granted to directors, employees, associates and consultants. Options expire ten years after the date of grant or 30 days after termination of employment and generally vest ratably at the rate of 25% on each of the first four anniversaries of the grant date. New shares are issued to satisfy stock option exercises under the Options Plan. Options awarded are generally granted with an exercise price equal to the market price of the Company's stock at the date of grant.

Below is a summary of the options activity for the three-year period ending April 30, 2008:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Life (In Years)	Aggregate Intrinsic Value
Options outstanding at April 30, 2005	4,092,075	\$4.96		
Granted	1,461,000	4.27		
Exercised	(132,050)	3.42		
Forfeited	(452,333)	4.93		
Options outstanding at April 30, 2006	4,968,692	4.78		
Granted	1,582,000	2.76		
Exercised	(10,400)	3.23		
Forfeited	(563,650)	4.06		
Expired	(205,448)	5.04		
Options outstanding at April 30, 2007	5,771,194	4.30		
Granted	1,770,000	0.80		
Exercised	—	—		
Forfeited(1)	(884,875)	4.18		
Expired (1)	(687,625)	4.78		
Options outstanding at April 30, 2008	5,968,694	\$3.33	7.5	\$929,400
Vested and expected to vest at April 30, 2008	5,501,873	\$3.50	7.3	\$749,672
Options exercisable at April 30, 2006	1,664,942	\$4.75		
Options exercisable at April 30, 2007	2,608,944	\$4.73		
Options exercisable at April 30, 2008	2,960,194	\$4.65	5.9	\$ —

(1) Includes options terminated in connection with the disposal of the Tecstar Automotive Group segment.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The aggregate intrinsic value in the table above is based on the Company's closing stock price of \$1.32 per share as of the last business day of the fiscal year ended April 30, 2008, which amount would have been received by the optionees had all options been exercised on that date.

The following table sets forth summarized information with respect to stock options outstanding and exercisable at April 30, 2008:

Exercise Price Range	Outstanding			Exercisable	
	Number of Shares	Average Life Remaining	Average Price	Number of Shares	Average Price
\$0.80 – \$0.98	1,770,000	9.87	\$0.80	—	\$0.00
\$0.98 – \$1.96	10,000	8.70	1.68	2,500	1.68
\$1.96 – \$2.95	815,000	8.25	2.76	215,000	2.73
\$2.95 – \$3.93	992,125	4.84	3.37	980,625	3.37
\$3.93 – \$4.91	984,440	6.66	4.36	569,940	4.41
\$4.91 – \$5.89	852,826	6.68	5.76	647,826	5.76
\$5.89 – \$6.87	517,503	5.79	6.60	517,503	6.60
\$6.87 – \$7.86	20,000	5.96	7.46	20,000	7.46
\$7.86 – \$9.82	6,800	2.30	9.82	6,800	9.82
	<u>5,968,694</u>	<u>7.45</u>	<u>3.33</u>	<u>2,960,194</u>	<u>4.65</u>

A summary of the options activity of the Company's non-vested options and changes during fiscal 2008 is as follows:

	Number of Shares	Weighted-Average		Remaining Unrecognized Compensation Cost
		Grant-Date Fair Value	Remaining Years To Vest	
Nonvested outstanding at April 30, 2007	3,162,250	\$3.04		
Granted	1,770,000	0.57		
Vested	(1,038,875)	3.34		
Forfeited	(884,875)	2.92		
Nonvested outstanding at April 30, 2008	<u>3,008,500</u>	<u>\$1.51</u>	<u>3.3</u>	<u>\$3,206,813</u>

On May 1, 2007, an additional 1,951,572 shares of common stock became available for future grant under the Options Plan pursuant to an "evergreen" provision contained in the Options Plan. On March 14, 2008, the Company granted 1,770,000 additional options under the Options Plan. The exercise price of \$0.80 for the options granted equaled the market price of the underlying stock on the date of the grant. At April 30, 2008, there were 3,055,858 shares of common stock available for grant under the Options Plan.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Shares Available

The number of undesignated shares available as of May 30, 2008, which represents the date the Company issued Term Note C and restructured its existing debt obligations, all of which are potentially payable in shares, is as follows:

	Common Stock	Series B Common Stock	Preferred Stock
Shares authorized	248,000,000	2,000,000	20,000,000
Less shares issued and outstanding	(77,972,399)	(999,969)	—
Less shares designated for issuance under:			
Stock options	(5,968,694)	—	—
Warrants	(19,661,028)	—	—
Conversion of principal under Convertible Note(1)	(11,996,797)	—	—
Make-Whole Amount provision under Convertible Note(2)	(4,940,791)	—	—
Repayment of principal under Term Note A(3)	(4,331,817)	—	—
Repayment of principal under Term Note B(4)	(15,000,000)	—	—
Repayment of principal under Term Note C(3)	(3,248,863)	—	—
Total shares designated for future issuance	(65,147,990)	—	—
Undesignated shares available	<u>104,879,611</u>	<u>1,000,031</u>	<u>20,000,000</u>

- (1) Conversion price for repayment of principal in shares is fixed at \$1.35 per share.
- (2) Conversion price for repayment of Make-Whole Amount in shares is fixed at \$1.50 per share.
- (3) Repayment of principal in shares is at Company's option at 95% of market price. Market price used is \$2.43 per share which represents the Company's closing share price on May 30, 2008.
- (4) Repayment of principal in shares is at Company's option, but share price must be above \$0.50 and number of shares is fixed at 15.0 million.

Share-based Compensation

The share-based compensation expense related to stock options and restricted stock included in the accompanying consolidated statement of operations and in the financial information by reportable business segment in Note 16 for the years ended April 30, 2007 and 2008 is:

Year Ended April 30, 2007				
	Quantum Fuel Systems	Corporate	Discontinued Operations	Total
Continuing operations:				
Cost of product sales	\$157,115	\$ —	\$ —	\$ 157,115
Research and development	244,079	—	—	244,079
Selling, general and administrative	129,888	3,010,590	—	3,140,478
Discontinued operations	—	—	913,387	913,387
Total share-based compensation	<u>\$531,082</u>	<u>\$3,010,590</u>	<u>\$913,387</u>	<u>\$4,455,059</u>
Year Ended April 30, 2008				
	Quantum Fuel Systems	Corporate	Discontinued Operations	Total
Continuing operations:				
Cost of product sales	\$ 96,216	\$ —	\$ —	\$ 96,216
Research and development	169,490	—	—	169,490
Selling, general and administrative	22,117	2,570,797	—	2,592,914
Discontinued operations	—	—	98,181	98,181
Total share-based compensation	<u>\$287,823</u>	<u>\$2,570,797</u>	<u>\$ 98,181</u>	<u>\$2,956,801</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The fair value of each share-based award is estimated on the grant date using the Black-Scholes option-pricing formula. Expected volatilities are based on the historical volatility of the Company's stock price. The expected life of options granted subsequent to the adoption of SFAS 123R is derived based on the historical life of the Company's options. The risk-free rate for periods within the expected life of the option is based on the U.S. Treasury interest rates in effect at the time of grant. A summary of the grant date fair value and intrinsic value information is as follows:

	Year Ended April 30,		
	2006	2007	2008
Weighted average grant date fair value per share	\$ 3.13	\$ 1.96	\$ 0.57
Intrinsic value of options exercised	\$ 127,476	\$ 12,335	n/a
Total fair value of options vested during the period	\$3,911,622	\$4,500,501	\$3,467,308

The fair value of options granted was estimated using the following weighted-average assumptions:

	Year Ended April 30,		
	2006	2007	2008
Dividend yield	0.0%	0.0%	0.0%
Expected life—years	6.6	5.5	5.8
Risk-free interest rate	5.0%	4.8%	2.4%
Expected volatility of common stock	84.4%	82.7%	85.1%

16. Business Segment and Geographic Information

Business Segments

The Company previously classified its business operations into three reporting segments: Quantum Fuel Systems, Tecstar Automotive Group, and Corporate. As discussed further in Note 3, the Tecstar Automotive Group business segment ceased operations in connection with a series of transactions that were completed on January 16, 2008 that resulted in the transfer of all the Tecstar businesses to an affiliate of the Company's lender. As a result, the historical activities of the Tecstar Automotive Group business segment are now classified as discontinued operations for all periods presented. The Quantum Fuel Systems business segment was not affected by the disposal of the Tecstar Automotive Group business segment. The product and contract revenues for continuing operations of the Company were all generated by the Quantum Fuel Systems segment for all periods presented. The Corporate reportable segment consists of general and administrative expenses incurred at the corporate level that indirectly support the Company's ongoing Quantum Fuel Systems operating segment and the Company's anticipated future operating segments. Corporate expenses consist primarily of personnel costs, share-based compensation costs and related general and administrative costs for executive, finance, legal, human resources, investor relations and the Company's board of directors. Certain historical indirect expenses of the Corporate segment have been reclassified and are reported as discontinued operations as a result of the disposal of the Tecstar Automotive Group segment.

The Quantum Fuel Systems business operations primarily consist of design, manufacture and supply of packaged fuel and electric drive and battery system technologies for use in fuel cell, hybrid, plug-in electric hybrid, hydrogen and other alternative fuel vehicles. This segment generates product revenues through the sale of hydrogen fuel storage, fuel delivery, and electronic control systems to OEMs, the installation of its systems into OEM vehicles, and the sale of transportable hydrogen refueling stations. Product revenues are also generated through the sale of compressed natural gas (CNG), propane (LPG), and hydrogen fuel storage, fuel delivery, and electronic control systems for internal combustion engine applications. In addition to product sales, the Quantum Fuel Systems segment generates contract revenue by providing engineering design and support to the OEMs so that its advanced propulsion systems integrate and operate with their fuel cell or hybrid applications. Contract

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

revenue is also generated from customers in the aerospace industry, military and other government entities, and other strategic alliance partners. General Motors comprised 71%, 70% and 64% of the total Quantum Fuel Systems segment revenue reported for fiscal years 2006, 2007 and 2008, respectively.

Prior to its disposal, the Tecstar Automotive Group segment previously comprised of the business activities acquired via the merger with Tecstar Automotive Group in March 2005, and subsequent specialty vehicle business acquisitions, including the February 8, 2006 acquisition of Regency. The Tecstar Automotive Group primarily consisted of second stage manufacturing of specialty equipment for General Motors' pick-up trucks and SUVs, engineering and design capabilities for concept vehicles, and distribution of conversion vehicles and automotive accessories through OEM dealer networks.

Intangible assets associated with the Tecstar Automotive Group and Regency acquisitions, prior to the write-off of the remaining unamortized balance in the first quarter of fiscal 2008 as disclosed in Note 3, were reported in the Tecstar Automotive Group business segment. Goodwill associated with the Tecstar Automotive Group acquisition was allocated 30% to the Quantum Fuel Systems business segment and 70% to the Tecstar Automotive Group business segment. The goodwill allocated to the Tecstar Automotive Group was determined to be impaired and written-off in the second quarter of fiscal 2007. Goodwill associated with the Regency acquisition was reported in the Tecstar Automotive Group business segment prior to its write-off in the first quarter of fiscal 2008.

All research and development is expensed as incurred and is included in the respective business segments. Research and development expense includes both customer-funded research and development and Company-sponsored research and development. Customer-funded research and development consists primarily of expenses associated with contract revenue. These expenses include applications development costs in the Company that are funded under customer contracts.

The chief operating decision maker allocates resources and tracks performance by the reporting segments. The Company evaluates performance based on profit or loss from operations before interest and income taxes.

Geographic Information

The Company's long-lived assets as of April 30, 2008 are primarily based in facilities in Irvine and Lake Forest, California. The Company's affiliate, ALP, is based in Vancouver, British Columbia, Canada, the Company's affiliate, Asola, is based in Erfurt, Germany, and the Company's affiliate, Fisker Automotive, is based in Irvine, California.

The Company's revenue by country is as follows (in thousands):

	Year Ended April 30,		
	2006	2007	2008
Germany	\$ 5,848	\$ 4,031	\$12,186
United States	12,130	10,925	11,348
Japan	1,610	1,053	1,547
Iceland	—	—	949
Hungary	—	—	371
Norway	47	1,439	—
Other	147	231	96
Total	<u>\$19,782</u>	<u>\$17,679</u>	<u>\$26,497</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Financial Information by Business Segment

Selected financial information by business segment for continuing operations follows (in thousands):

	Year Ended April 30,		
	2006	2007	2008
Operating Loss			
Quantum Fuel Systems	\$(13,383)	\$(12,444)	\$ (7,340)
Corporate	(5,912)	(10,992)	(11,431)
Total	<u>\$(19,295)</u>	<u>\$(23,436)</u>	<u>\$(18,771)</u>
Capital Expenditures			
Quantum Fuel Systems	\$ 1,335	\$ 208	\$ 1,629
Corporate	10	—	2
Total	<u>\$ 1,345</u>	<u>\$ 208</u>	<u>\$ 1,631</u>
Depreciation			
Quantum Fuel Systems	\$ 2,063	\$ 2,232	\$ 2,109
Corporate	16	16	13
Gross Total	<u>\$ 2,079</u>	<u>\$ 2,248</u>	<u>\$ 2,122</u>
Amortization of Intangibles			
Quantum Fuel Systems	<u>\$ 1,661</u>	<u>\$ 1,674</u>	<u>\$ 1,676</u>

Selected financial information for discontinued operations is as follows (in thousands):

	Year Ended April 30,		
	2006	2007	2008
Discontinued Operations:			
Capital Expenditures	\$6,615	\$5,362	\$ 906
Depreciation	\$4,342	\$5,178	\$1,577
Amortization of Intangibles	\$2,422	\$2,862	\$ 698

Identifiable assets by reporting segment is as follows (in thousands):

	April 30, 2007	April 30, 2008
Identifiable Assets		
Quantum Fuel Systems	\$ 54,284	\$61,753
Corporate	8,337	7,033
Tecstar Automotive Group	104,922	—
	<u>\$167,543</u>	<u>\$68,786</u>

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS

Valuation and qualifying accounts of the Company's continuing operations are as follows:

<u>Account Description</u>	<u>Balance at Beginning of Year</u>	<u>Additions Charged (Credited) to Costs and Expenses</u>	<u>Deductions and Other Adjustments</u>	<u>Balance at End of Year</u>
Allowance for doubtful accounts for the year ended:				
April 30, 2006	\$ 74,070	\$ 48,001	\$ 22,217	\$ 144,288
April 30, 2007	144,288	40,944	(506)	184,726
April 30, 2008	184,726	643,178	(220,943)	606,961
Provision for obsolescence reserve for the year ended:				
April 30, 2006	\$1,845,832	\$(453,103)	\$ (49,773)	\$1,342,956
April 30, 2007	1,342,956	362,404	—	1,705,360
April 30, 2008	1,705,360	186,318	(836,130)	1,055,548
Warranty reserve for the year ended:				
April 30, 2006	\$ 667,564	\$(185,967)	\$(117,634)	\$ 363,963
April 30, 2007	363,963	119,342	(16,932)	466,373
April 30, 2008	466,373	603,216	(403,983)	665,606

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: July 2, 2008

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

By: /s/ WILLIAM B. OLSON
William B. Olson, Chief Financial Officer and Treasurer
[Authorized Signatory and Principal Financial Officer]

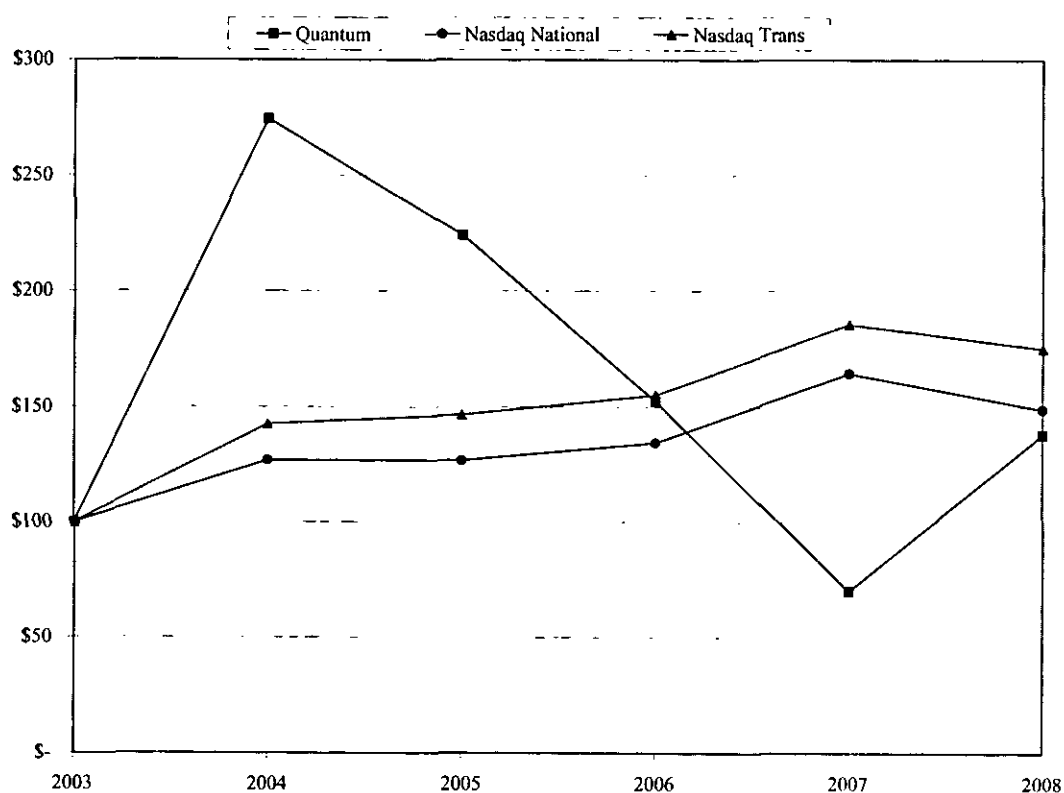
Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ALAN P. NIEDZWIECKI</u> Alan P. Niedzwiecki	President, Chief Executive Officer and Director (Principal Executive Officer)	July 2, 2008
<u>/s/ W. BRIAN OLSON</u> W. Brian Olson	Chief Financial Officer and Treasurer (Principal Financial Officer)	July 2, 2008
<u>/s/ BRADLEY J. TIMON</u> Bradley J. Timon	Controller (Principal Accounting Officer)	July 2, 2008
<u>/s/ DALE L. RASMUSSEN</u> Dale L. Rasmussen	Chairman of the Board of Directors	July 2, 2008
<u>/s/ JEFFREY P. BEITZEL</u> Jeffrey P. Beitzel	Director and Chief Operating Officer	July 2, 2008
<u>/s/ BRIAN A. RUNKEL</u> Brian A. Runkel	Director	July 2, 2008
<u>/s/ G. SCOTT SAMUELSEN</u> G. Scott Samuelson	Director	July 2, 2008
<u>/s/ CARL E. SHEFFER</u> Carl E. Sheffer	Director	July 2, 2008
<u>/s/ THOMAS J. TYSON</u> Thomas J. Tyson	Director	July 2, 2008
<u>/s/ PAUL GRUTZNER</u> Paul Grutzner	Director	July 2, 2008

Five-Year Stock Performance Graph

The following information does not constitute soliciting material and should not be deemed filed or incorporated by reference into any other company filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the company specifically incorporates the report herein.

The following performance graph compares the cumulative stockholder return on our common stock on an annual basis, assuming an initial investment of \$100, for the period beginning on June 30, 2003 and ending on June 30, 2008, with the cumulative total return of a broad market index (NASDAQ National Stock Market – CRSP Total Return Index) and an industry index (NASDAQ Transportation Stock Index) for the same period. We paid no dividends during the periods shown; the performance of the indexes is shown on a total return (dividend reinvestment) basis. The graph lines merely connect the prices on the dates indicated and do not reflect fluctuations between those dates. The comparisons in the graph below are based on historical data and are not intended to forecast the possible future performance of our common stock.



W. J. VAN DER WERF, TECHN. SECRETARY

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W. J. VAN DER WERF, TECHN. SECRETARY

W. J. VAN DER WERF, TECHN. SECRETARY

END